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Legal aspects of electronic commerce

Explanatory note on the Convention on the Use of Electronic Communications in International Contracts

Note by the Secretariat

1. The Commission approved the final draft of the United Nations Convention on the Use of Electronic Communications in International Contracts ("the Convention") at its thirty-eighth session (Vienna, 4-15 July 2005). The Convention was subsequently adopted by the General Assembly and opened for signature on … .

2. When it approved the final draft for adoption by the General Assembly, at its thirty-eighth session, the Commission requested the Secretariat to prepare explanatory notes on the Convention and present them to the Commission at its thirty-ninth session (see A/60/17, para. 165).

3. Annex I to this note contains the general part of the explanatory notes prepared by the Secretariat pursuant to the Commission's request. The addenda to this note contain article-by-articles remarks on the Convention. The Commission may wish to take note of the explanatory notes and request their publication by the Secretariat, together with the final text of the Convention.

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I. Introduction

1. The United Nations Convention on the Use of Electronic Communications in International Contracts ("the Convention") was prepared by the United Nations Commission on International Trade Law (UNCITRAL) and adopted by the United Nations General Assembly on ... .

2. When it approved the final draft for adoption by the General Assembly, at its thirty-eighth session (Vienna, 4-15 July 2005), UNCITRAL requested the Secretariat to prepare explanatory notes on the new instrument. UNCITRAL took note of the explanatory notes prepared by the Secretariat at its thirty-ninth session (New York, 19 June-7 July 2006), and requested the Secretariat to publish the notes together with the text of the Convention.

II. Main features of the Convention

3. The purpose of the Convention is to offer practical solutions for issues related to the use of electronic means of communication in connection with international contracts.

4. The Convention is not intended to establish uniform rules for substantive contractual issues that are not specifically related to the use of electronic communications. However, given that a strict separation between technology-related and substantive issues in the context of electronic commerce is not always feasible or desirable, the Convention contains a few substantive rules that extend beyond merely reaffirming the principle of functional equivalence where substantive rules are needed in order to ensure the effectiveness of electronic communications.

A. Sphere of application (articles 1 and 2)

5. The Convention applies to the "use of electronic communications in connection with the formation or performance of a contract between parties whose places of business are in different States". "Electronic communication" includes any statement, declaration, demand, notice or request, including an offer and the acceptance of an offer, made by electronic, magnetic, optical or similar means in connection with the formation or performance of a contract. The word "contract" in the Convention is used in a broad way and includes, for example, arbitration agreements and other legally binding agreements whether or not they are usually called "contracts".

6. The Convention applies to international contracts, that is, contracts between parties located in two different States, but it is not necessary that both those States be Contracting States of the Convention. However, the Convention only applies when the law of a Contracting State is the law applicable to the dealings between the parties, which is to be determined by the rules on private international law of the forum State, if the parties have not validly chosen the applicable law.

7. The Convention does not apply to electronic communications exchanged in connection with contracts entered into for personal, family or household purposes. However, unlike the corresponding exclusion under article 2 (a) of the

United Nations Sales Convention, the exclusion of these transactions under the Convention is an absolute one, meaning that the Convention would not apply to contracts entered into for personal, family or household purposes, even if the purpose of the contract was not apparent to the other party. Furthermore, the Convention does not apply to transactions in certain financial markets subject to specific regulation or industry standards. These transactions have been excluded because the financial service sector is already subject to well-defined regulatory controls and industry standards that address issues relating to electronic commerce in an effective way for the worldwide functioning of that sector. Lastly, the Convention does not apply to negotiable instruments or documents of title, in view of the particular difficulty of creating an electronic equivalent of paper-based negotiability, for which special rules would need to be devised.

B. Location of the parties and information requirements (articles 6 and 7)

8. The Convention contains a set of rules dealing with the location of the parties. The Convention does not contemplate a duty for the parties to disclose their places of business, but establishes a certain number of presumptions and default rules aimed at facilitating a determination of a party's location. It attributes primary—albeit not absolute—importance to a party's indication of its relevant place of business.

9. The Convention takes a cautious approach to peripheral information related to electronic messages, such as IP addresses, domain names or the geographic location of information systems, which despite their apparent objectivity have little, if any, conclusive value for determining the physical location of the parties.

C. Treatment of contracts (articles 8, 11,12 and 13)

10. The Convention affirms in article 8 the principle contained in article 11 of the UNCITRAL Model Law on Electronic Commerce that contracts should not be denied validity or enforceability solely because they result from the exchange of electronic communications. The Convention does not venture into determining when offers and acceptances of offers become effective for purposes of contract formation.

11. Article 12 of the Convention recognizes that contracts may be formed as a result of actions by automated message systems ("electronic agents"), even if no natural person reviewed each of the individual actions carried out by the systems or the resulting contract. However, article 11 clarifies that the mere fact that a party offers interactive applications for the placement of orders—whether or not its system is fully automated—does not create a presumption that the party intended to be bound by the orders placed through the system.

12. Consistently with the decision to avoid establishing a duality of regimes for electronic and paper-based transactions, and consistent with the facilitative—rather than regulatory—approach of the Convention, article 13 defers to domestic law on matters such as any obligations that the parties might have to make contractual terms available in a particular manner. However the Convention deals with the

substantive issue of input errors in electronic communications in view of the potentially higher risk of mistakes being made in real-time or nearly instantaneous transactions entered into by a natural person communicating with an automated message system. Draft article 14 provides that a party who makes an input error may withdraw the part of the communication in question under certain circumstances.

D. Form requirements (article 9)

13. Article 9 of the Convention reiterates the basic rules contained in articles 6, 7 and 8 of the UNCITRAL Model Law on Electronic Commerce concerning the criteria for establishing functional equivalence between electronic communications and paper documents—including "original" paper documents—as well as between electronic authentication methods and hand-written signatures. However, unlike the Model Law, the Convention does not deal with record retention, as it was felt that such a matter was more closely related to rules of evidence and administrative requirements than with contract formation and performance.

14. It should be noted that draft article 9 establishes minimum standards to meet form requirements that may exist under the applicable law. The principle of party autonomy in draft article 3, which is also contained in other UNCITRAL instruments, such as in article 6 of the United Nations Sales Convention, should not be understood as allowing the parties to go as far as relaxing statutory requirements on signature in favour of methods of authentication that provide a lesser degree of reliability than electronic signatures. Generally, it was said, party autonomy did not mean that the Convention empowers the parties to set aside statutory requirements on form or authentication of contracts and transactions

E. Time and place of dispatch and receipt of electronic communications (article 10)

15. As is the case under article 15 of the UNCITRAL Model Law on Electronic Commerce, the Convention contains a set of default rules on time and place of dispatch and receipt of data messages, which are intended to supplement national rules on dispatch and receipt by transposing them to an electronic environment. The differences in wording between article 10 of the Convention and article 15 of the Model Law are not intended to produce a different practical result, but rather are aimed at facilitating the operation of the Convention in various legal systems, by aligning the formulation of the relevant rules with general elements commonly used to define dispatch and receipt under domestic law.

16. Under the Convention, "dispatch" occurs when an electronic communication leaves an information system under the control of the originator, whereas 'receipt" occurs when an electronic communication becomes capable of being retrieved by the addressee, which is presumed to happen when the electronic communication reaches the addressee's electronic address. The Convention distinguishes between delivery of communications to specifically designated electronic addresses and delivery of communications to an address not specifically designated. In the first case, a communication is received when it reaches the addressee's electronic

address (or "enters" the addressee's "information system" in the terminology of the Model Law). For all cases where the communication is not delivered to a designated electronic address, receipt under the Convention only occurs when (a) the electronic communication becomes capable of being retrieved by the addressee (by reaching an electronic address of the addressee) and (b) the addressee actually becomes aware that the communication was sent to that particular address.

17. Electronic communications are presumed to be dispatched and received at the parties' places of business.

F. Relationship to other international instruments (article 19)

18. UNCITRAL hopes that States may find the Convention useful to facilitate the operation of other international instruments—particularly trade-related ones. Article 20 intends to offer a possible common solution for some of the legal obstacles to electronic commerce under existing international instruments, which had been the object of a study done by the Secretariat, in a manner that obviates the need for amending individual international conventions.

19. In addition to those instruments that, for the avoidance of doubt, are listed in paragraph 1, the provisions of the Convention may also apply, pursuant to paragraph 2, to electronic communications exchanged in connection with contracts covered by other international conventions, treaties or agreements, unless such application has been excluded by a Contracting State. The possibility of excluding this expanded application of the Convention has been added to take into account possible concerns of States that may wish to ascertain first whether the Convention would be compatible with their existing international obligations.

20. Paragraphs 3 and 4 of article 20 offer further flexibility by allowing States to add specific conventions to the list of international instruments to which they would apply the provisions of the Convention—even if the State has submitted a general declaration under paragraph 2—or to exclude certain specific conventions identified in their declarations. It should be noted that declarations under paragraph 4 of the draft article would exclude the application of the Convention to the use of electronic communications in respect of all contracts to which another international convention applies.

III. Summary of preparatory work

21. At its thirty-third session (New York, 17 June-7 July 2000), UNCITRAL held a preliminary exchange of views on proposals for future work in the field of electronic commerce. The three suggested topics were: electronic contracting, considered from the perspective of the United Nations Sales Convention on Contracts for the International Sale of Goods (the "United Nations Sales Convention");[1] online dispute settlement, and dematerialization of documents of title, in particular in the transport industry.

[1] United Nations, *Treaty Series*, vol. 1489, No. 25567.

22. The Commission welcomed those suggestions. The Commission generally agreed that, upon completing the preparation of the Model Law on Electronic Signatures, the Working Group would be expected to examine, at its thirty-eighth session, some or all of the above-mentioned topics, as well as any additional topic, with a view to making more specific proposals for future work by the Commission at its thirty-fourth session, in 2001. It was agreed that work to be carried out by the Working Group could involve consideration of several topics in parallel as well as preliminary discussion of the contents of possible uniform rules on certain aspects of the above-mentioned topics.[2]

23. The Working Group considered those proposals at its thirty-eighth session (New York, 12-23 March 2001), on the basis of a set of notes dealing with a possible convention to remove obstacles to electronic commerce in existing international conventions (A/CN.9/WG.IV/WP.89); dematerialization of documents of title (A/CN.9/WG.IV/WP.90); and electronic contracting (A/CN.9/WG.IV/WP.91). The Working Group held an extensive discussion on issues related to electronic contracting (A/CN.9/484, paras. 94-127). The Working Group concluded its deliberations by recommending to the Commission that it should start work towards the preparation of an international instrument dealing with certain issues in electronic contracting on a priority basis. At the same time, the Working Group recommended that the Secretariat be entrusted with the preparation of the necessary studies concerning three other topics considered by the Working Group: (a) a comprehensive survey of possible legal barriers to the development of electronic commerce in international instruments; (b) a further study of the issues related to transfer of rights, in particular, rights in tangible goods, by electronic means and mechanisms for publicizing and keeping a record of acts of transfer or the creation of security interests in such goods; and (c) a study discussing the UNCITRAL Model Law on International Commercial Arbitration, as well as the UNCITRAL Arbitration Rules, to assess their appropriateness for meeting the specific needs of online arbitration (A/CN.9/484, para. 134).

24. At the thirty-fourth session of the Commission (Vienna, 25 June-13 July 2001), there was wide support for the recommendations made by the Working Group, which were found to constitute a sound basis for future work by the Commission. Views varied, however, as regards the relative priority to be assigned to the different topics. One line of thought was that a project aimed at removing obstacles to electronic commerce in existing instruments should have priority over the other topics, in particular over the preparation of a new international instrument dealing with electronic contracting. The prevailing view, however, was in favour of the order of priority that had been recommended by the Working Group. It was pointed out, in that connection, that the preparation of an international instrument dealing with issues of electronic contracting and the consideration of appropriate ways for removing obstacles to electronic commerce in existing uniform law conventions and trade agreements were not mutually exclusive. The Commission was reminded of the common understanding reached at its thirty-third session that work to be carried out by the Working Group could involve consideration of several

[2] *Official Records of the General Assembly, Fifty-fifth Session, Supplement No. 17* (A/55/17), paras. 384-388.

topics in parallel.[3] In order to give States sufficient time to hold internal consultations, the Commission accepted that suggestion and decided that the first meeting of the Working Group on issues of electronic contracting should take place in the first quarter of 2002.[4]

25. At its thirty-ninth session (New York, 11-15 March 2002), the Working Group considered a note by the Secretariat discussing selected issues on electronic contracting, which contained in its annex I an initial draft tentatively entitled "Preliminary Convention on [International] Contracts Concluded or Evidenced by Data Messages" (A/CN.9/WG.IV/WP.95). The Working Group further considered a note by the Secretariat transmitting comments that had been formulated by an ad hoc expert group established by the International Chamber of Commerce to examine the issues raised in document A/CN.9/WG.IV/WP.95 and the draft provisions set out in its annex I (A/CN.9/WG.IV/WP.96).

26. The Working Group considered first the form and scope of the preliminary Convention (see A/CN.9/509, paras. 18-40). The Working Group agreed to postpone discussion on exclusions from the Convention until it had had an opportunity to consider the provisions related to location of the parties and contract formation. In particular, the Working Group decided to proceed with its deliberations by first taking up articles 7 and 14, both of which dealt with issues related to the location of the parties (A/CN.9/509, paras. 41-65). After it had completed its initial review of those provisions, the Working Group proceeded to consider the provisions dealing with contract formation in articles 8-13 (A/CN.9/509, paras. 66-121). The Working Group concluded its deliberations on the Convention with a discussion of draft article 15 (A/CN.9/509, paras. 122-125). The Working Group agreed that it should consider articles 2 to 4, dealing with the sphere of application of the Convention, and articles 5 (Definitions) and 6 (Interpretation), at its fortieth session. The Working Group requested the Secretariat to prepare a revised version of the preliminary Convention, based on those deliberations and decisions, for consideration by the Working Group at its fortieth session.

27. Furthermore, at the closing of that session, the Working Group was informed of the progress that had been made by the Secretariat in connection with the survey of possible legal obstacles to electronic commerce in existing trade-related instruments. The Working Group noted that the Secretariat had begun the work by identifying and reviewing trade-relevant instruments from among the large number of multilateral treaties that were deposited with the Secretary-General. The Secretariat had identified 33 treaties as being potentially relevant for the survey and analysed possible issues that might arise from the use of electronic means of communications under those treaties. The preliminary conclusions reached by the Secretariat in relation to those treaties were set out in a note by the Secretariat (A/CN.9/WG.IV/WP.94). The Working Group took note of the progress that had been made by the Secretariat in connection with the survey, but did not have sufficient time to consider the preliminary conclusions of the survey. The Working Group requested the Secretariat to seek the views of member and observer States on the survey and the preliminary conclusions indicated therein and to prepare a report compiling such comments for consideration by the Working Group at a later stage.

[3] Ibid., *Fifty-sixth Session, Supplement No. 17* (A/56/17), para. 293.

[4] Ibid., para. 295.

The Working Group requested the Secretariat to seek the views of other international organizations, including organizations of the United Nations system and other intergovernmental organizations, as to whether there were international trade instruments in respect of which those organizations or their member States acted as depositaries that those organizations would wish to be included in the survey being conducted by the Secretariat (A/CN.9/509, para. 16).

28. The Commission considered the Working Group's report at its thirty-fifth session (New York, 17-28 June 2002). The Commission noted with appreciation that the Working Group had started its consideration of a possible international instrument dealing with selected issues on electronic contracting. The Commission reaffirmed its belief that an international instrument dealing with certain issues of electronic contracting might be a useful contribution to facilitate the use of modern means of communication in cross-border commercial transactions. The Commission commended the Working Group for the progress made in that regard. However, the Commission also took note of the varying views that had been expressed within the Working Group concerning the form and scope of the instrument, its underlying principles and some of its main features. The Commission noted, in particular, the proposal that the Working Group's considerations should not be limited to electronic contracts, but should apply to commercial contracts in general, irrespective of the means used in their negotiation. The Commission was of the view that member and observer States participating in the Working Group's deliberations should have ample time for consultations on those important issues. For that purpose, the Commission considered that it might be preferable for the Working Group to postpone its discussions on a possible international instrument dealing with selected issues on electronic contracting until its forty-first session, to be held in New York from 5 to 9 May 2003.[5]

29. As regards the Working Group's consideration of possible legal obstacles to electronic commerce that might result from trade-related international instruments, the Commission reiterated its support for the efforts of the Working Group and the Secretariat in that respect. The Commission requested the Working Group to devote most of its time at its fortieth session, in October 2002, to a substantive discussion of various issues that had been raised in the Secretariat's initial survey (A/CN.9/WG.IV/WP.94).[6]

30. At its fortieth session (Vienna, 14-18 October 2002), the Working Group reviewed the survey of possible legal barriers to electronic commerce contained in document A/CN.9/WG.IV/WP.94. The Working Group generally agreed with the analysis and endorsed the recommendations that had been made by the Secretariat (see A/CN.9/527, paras. 24-71). The Working Group agreed to recommend that the Secretariat take up the suggestions for expanding the scope of the survey so as to review possible obstacles to electronic commerce in additional instruments that had been proposed for inclusion in the survey by other organizations and explore with those organizations the modalities for carrying out the necessary studies, taking into account the possible constraints put on the Secretariat by its current workload. The Working Group invited member States to assist the Secretariat in that task by identifying appropriate experts or sources of information in respect of the various

[5] Ibid., *Fifty-seventh Session, Supplement No. 17* (A/57/17), para. 206.

[6] Ibid., para. 207.

specific fields of expertise covered by the relevant international instruments. The Working Group used the remaining time at that session to resume its deliberations on the preliminary Convention (see A/CN.9/527, paras. 72-126).

31. The Working Group resumed its deliberations on the preliminary Convention at its forty-first session (New York, 5-9 May 2003. The Working Group noted that a task force that had been established by the International Chamber of Commerce had submitted comments on the scope and purpose of the Convention (A/CN.9/WG.IV/WP.101, annex). The Working Group generally welcomed the work being undertaken by private-sector representatives, such as the International Chamber of Commerce, which was considered to complement usefully the work being undertaken in the Working Group to develop an international convention. The decisions and deliberations of the Working Group with respect to the Convention are reflected in chapter IV of the report on its forty-first session (see A/CN.9/528, paras. 26-151).

32. In accordance with a decision taken at its fortieth session (see A/CN.9/527, para. 93), the Working Group also held a preliminary discussion on the question of excluding intellectual property rights from the Convention (see A/CN.9/528, paras. 55-60). The Working Group agreed that the Secretariat should be requested to seek the specific advice of relevant international organizations, such as the World Intellectual Property Organization (WIPO) and the World Trade Organization, as to whether, in the view of those organizations, including contracts that involved the licensing of intellectual property rights in the scope of the Convention so as to expressly recognize the use of data messages in the context of those contracts might negatively interfere with rules on the protection of intellectual property rights. It was agreed that whether or not such exclusion was necessary would ultimately depend on the substantive scope of the Convention.

33. At its thirty-sixth session (Vienna, 30 June-11 July 2003), the Commission noted the progress made by the Secretariat in connection with a survey of possible legal barriers to the development of electronic commerce in international trade-related instruments. The Commission reiterated its belief in the importance of that project and its support for the efforts of the Working Group and the Secretariat in that respect. The Commission noted that the Working Group had recommended that the Secretariat expand the scope of the survey to review possible obstacles to electronic commerce in additional instruments that had been proposed to be included in the survey by other organizations and to explore with those organizations the modalities for carrying out the necessary studies, taking into account the possible constraints put on the Secretariat by its current workload. The Commission called on member States to assist the Secretariat in that task by inviting appropriate experts or sources of information in respect of the various specific fields of expertise covered by the relevant international instruments.[7]

34. The Commission further noted with appreciation that the Working Group had continued its consideration of a preliminary Convention dealing with selected issues related to electronic contracting. The Commission reaffirmed its belief that the instrument under consideration would be a useful contribution to facilitate the use of modern means of communication in cross-border commercial transactions. The Commission observed that the form of an international convention had been used by

[7] Ibid., *Fifty-eighth Session, Supplement No. 17* (A/58/17), para. 211.

the Working Group thus far as a working assumption, but that did not preclude the choice of another form for the instrument at a later stage of the Working Group's deliberations.[8]

35. The Commission was informed that the Working Group had exchanged views on the relationship between the preliminary Convention and the Working Group's efforts to remove possible legal obstacles to electronic commerce in existing international instruments relating to international trade (see A/CN.9/528, para. 25). The Commission expressed support for the Working Group's efforts to tackle both lines of work simultaneously.[9]

36. The Commission was informed that the Working Group had held a preliminary discussion on the question of whether intellectual property rights should be excluded from the Convention (see A/CN.9/528, paras. 55-60). The Commission noted the Working Group's understanding that its work should not be aimed at providing a substantive law framework for transactions involving "virtual goods", nor was it concerned with the question of whether and to what extent "virtual goods" were or should be covered by the United Nations Sales Convention. The question before the Working Group was whether and to what extent the solutions for electronic contracting being considered in the context of the preliminary Convention could also apply to transactions involving licensing of intellectual property rights and similar arrangements. The Secretariat was requested to seek the views of other international organizations on the question, in particular WIPO.[10]

37. At its forty-second session (Vienna, 17-21 November 2003), the Working Group began its deliberations by holding a general discussion on the scope of the preliminary Convention. The Working Group, inter alia, noted that a task force had been established by the International Chamber of Commerce to develop contractual rules and guidance on legal issues related to electronic commerce, tentatively called "e-Terms 2004". The Working Group welcomed the work being undertaken by the International Chamber of Commerce, which was considered to complement usefully the work being undertaken in the Working Group to develop an international convention. The Working Group was of the view that the two lines of work were not mutually exclusive, in particular since the Convention dealt with requirements that were typically found in legislation, and legal obstacles, being statutory in nature, could not be overcome by contractual provisions or non-binding standards. The Working Group expressed its appreciation to the International Chamber of Commerce for the interest in carrying out its work in cooperation with UNCITRAL and confirmed its readiness to provide comments on drafts that the International Chamber of Commerce would be preparing (see A/CN.9/546, paras. 33-38).

38. The Working Group proceeded to review articles 8 to 15 of the revised preliminary Convention contained in the annex to the note by the Secretariat (A/CN.9/WG.IV/WP.103). The Working Group agreed to make several amendments to those provisions and requested the Secretariat to prepare a revised draft for future consideration (see A/CN.9/546, paras. 39-135).

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[8] Ibid., para. 212.
[9] Ibid., para. 213.
[10] Ibid., para. 214.

39. The Working Group continued its work on the preliminary Convention at its forty-third session (New York, 15-19 March 2004) on the basis of a note by the Secretariat that contained a revised version of the preliminary Convention (A/CN.9/WG.IV/WP.108). The deliberations of the Working Group focused on draft articles X, Y and 1 to 4 (A/CN.9/548, paras. 13-123). The Working Group agreed that it should endeavour to complete its work on the Convention with a view to enabling its review and approval by the Commission in 2005.

40. At its thirty-seventh session (New York, 14-25 June 2004), the Commission took note of the reports of the Working Group on the work of its forty-second and forty-third sessions (A/CN.9/546 and A/CN.9/548, respectively). The Commission was informed that the Working Group had undertaken a review of articles 8 to 15 of the revised text of the preliminary Convention at its forty-second session. The Commission noted that the Working Group, at its forty-third session, had reviewed articles X and Y as well as articles 1 to 4 of the Convention and that the Working Group had held a general discussion on draft articles 5 to 7 bis. The Commission expressed its support for the efforts by the Working Group to incorporate in the Convention provisions aimed at removing possible legal obstacles to electronic commerce that might arise under existing international trade-related instruments. The Commission was informed that the Working Group had agreed that it should endeavour to complete its work on the Convention with a view to enabling its review and approval by the Commission in 2005. The Commission expressed its appreciation for the Working Group's endeavours and agreed that a timely completion of the Working Group's deliberations on the Convention should be treated as a matter of importance, which would justify approving a two-week forty-fourth session of the Working Group to be held in October 2004.[11]

41. The Working Group resumed its deliberations at its forty-fourth session (Vienna, 11-22 October 2004), on the basis of a newly revised preliminary Convention contained in annex I of the note by the Secretariat A/CN.9/WG.IV/WP.110. The Working Group reviewed and adopted draft articles 1 to 14, 18 and 19 of the Convention. The relevant decisions and deliberations of the Working Group are reflected in its report on the work of its forty-fourth session (A/CN.9/571, paras. 13-206). At that time, the Working Group also held an initial exchange of views on the preamble and the final clauses of the Convention, including proposals for additional provisions in chapter IV. In the light of its deliberations on chapters I, II and III and articles 18 and 19 of the Convention, the Working Group requested the Secretariat to make consequential changes in the draft final provisions in chapter IV. The Working Group also requested the Secretariat to insert within square brackets in the final draft to be submitted to the Commission the draft provisions that had been proposed for addition to the text considered by the Working Group (A/CN.9/WG.IV/WP.110). The Working Group requested the Secretariat to circulate the revised version of the Convention to Governments for their comments, with a view to consideration and adoption of the Convention by the Commission at its thirty-eighth session, in 2005.

42. A number of Governments and international organizations submitted written comments on the Convention (see A/CN.9/578 and addenda 1-17). UNCITRAL considered the Convention and the comments received at its thirty-eighth session

[11] Ibid., *Fifty-ninth Session, Supplement No. 17* (A/59/17), para. 71.

(Vienna, 4-15 July 2005). UNCITRAL agreed to make a few substantive amendments to the draft text and submitted it to the General Assembly for adoption. The deliberations of UNCITRAL are reflected in the report on the work of its thirty-eight session (A/60/17, paras. 12-167).

43. The General Assembly adopted the Convention on 23 November 2005 and opened it for signature from 16 January 2006 to 16 January 2008 by its resolution 60/21, which reads as follows:

The General Assembly,

Recalling its resolution 2205 (XXI) of 17 December 1966, by which it established the United Nations Commission on International Trade Law with a mandate to further the progressive harmonization and unification of the law of international trade and in that respect to bear in mind the interests of all peoples, in particular those of developing countries, in the extensive development of international trade,

Considering that problems created by uncertainties as to the legal value of electronic communications exchanged in the context of international contracts constitute an obstacle to international trade,

Convinced that the adoption of uniform rules to remove obstacles to the use of electronic communications in international contracts, including obstacles that might result from the operation of existing international trade law instruments, would enhance legal certainty and commercial predictability for international contracts and may help States gain access to modern trade routes,

Recalling that, at its thirty-fourth session, in 2001, the Commission decided to prepare an international instrument dealing with issues of electronic contracting, which should also aim at removing obstacles to electronic commerce in existing uniform law conventions and trade agreements, and entrusted its Working Group IV (Electronic Commerce) with the preparation of a draft,[12]

Noting that the Working Group devoted six sessions, from 2002 to 2004, to the preparation of the draft Convention on the Use of Electronic Communications in International Contracts, and that the Commission considered the draft Convention at its thirty-eighth session in 2005,

Being aware that all States and interested international organizations were invited to participate in the preparation of the draft Convention at all the sessions of the Working Group and at the thirty-eighth session of the Commission, either as members or as observers, with a full opportunity to speak and make proposals,[13]

Noting with satisfaction that the text of the draft Convention was circulated for comments before the thirty-eighth session of the Commission to all Governments and international organizations invited to attend the meetings

[12] *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 17* and corrigendum (A/56/17 and Corr.3), paras. 291–295.

[13] Ibid., *Sixtieth Session, Supplement No. 17* (A/60/17), chap. III.

of the Commission and the Working Group as observers, and that the comments received were before the Commission at its thirty-eighth session,[14]

Taking note with satisfaction of the decision of the Commission at its thirty-eighth session to submit the draft Convention to the General Assembly for its consideration,[15]

Taking note of the draft Convention approved by the Commission,[16]

1. *Expresses its appreciation* to the United Nations Commission on International Trade Law for preparing the draft Convention on the Use of Electronic Communications in International Contracts;[5]

2. *Adopts* the United Nations Convention on the Use of Electronic Communications in International Contracts, which is contained in the annex to the present resolution, and requests the Secretary-General to open it for signature;

3. *Calls upon* all Governments to consider becoming party to the Convention.

53rd plenary meeting
23 November 2005

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[14] A/CN.9/578 and Add.1–17.

[15] *Official* Records *of the General Assembly, Sixtieth Session, Supplement No. 17* (A/60/17), para. 167.

[16] Ibid., annex I.

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Note by the Secretariat

Addendum

1. The Commission approved the final draft of the United Nations Convention on the Use of Electronic Communications in International Contracts ("the Convention") at its thirty-eighth session (Vienna, 4-15 July 2005). The Convention was subsequently adopted by the General Assembly and opened for signature on … .

2. When it approved the final draft for adoption by the General Assembly, at its thirty-eighth session, the Commission requested the Secretariat to prepare explanatory notes on the Convention and present them to the Commission at its thirty-ninth session (see A/60/17, para. 165).

3. Annex I to this note contains article-by-article remarks on the Convention. The Commission may wish to take note of the explanatory notes and request their publication by the Secretariat, together with the final text of the Convention.

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IV. Article-by-article remarks

PREAMBLE

The States Parties to this Convention,

***Reaffirming* their belief that international trade on the basis of equality and mutual benefit is an important element in promoting friendly relations among States,**

***Noting* that the increased use of electronic communications improves the efficiency of commercial activities, enhances trade connections and allows new access opportunities for previously remote parties and markets, thus playing a fundamental role in promoting trade and economic development, both domestically and internationally,**

***Considering* that problems created by uncertainty as to the legal value of the use of electronic communications in international contracts constitute an obstacle to international trade,**

***Convinced* that the adoption of uniform rules to remove obstacles to the use of electronic communications in international contracts, including obstacles that might result from the operation of existing international trade law instruments, would enhance legal certainty and commercial predictability for international contracts and help States gain access to modern trade routes,**

***Being of the opinion* that uniform rules should respect the freedom of parties to choose appropriate media and technologies, taking account of the principles of technological neutrality and functional equivalence, to the extent that the means chosen by the parties comply with the purpose of the relevant rules of law,**

***Desiring* to provide a common solution to remove legal obstacles to the use of electronic communications in a manner acceptable to States with different legal, social and economic systems,**

Have agreed as follows:

1. Essential objectives of the Convention

1. The preamble is intended to serve as a statement of the general principles on which the Convention is based and which, under article 5, may be used in filling the gaps left in the Convention.

2. The essential objective of the Convention is reflected in the fifth paragraph of the Preamble, that is, to establish uniform rules intended to remove obstacles to the use of electronic communications in international contracts, including obstacles that might result from the operation of existing international trade law instruments with a view to enhancing legal certainty and commercial predictability.

2. Main principles on which the Convention is based

3. The sixth paragraph of the Preamble makes reference to two principles that have guided the entire work of UNCITRAL in the area of electronic commerce: technological neutrality and functional equivalence.

Technological neutrality

4. The principle of technological neutrality means that the Convention is intended to provide for the coverage of all factual situations where information is generated, stored or transmitted in the form of electronic communications, irrespective of the technology or the medium used. For that purpose, the rules of the Convention are "neutral" rules; that is, they do not depend on or presuppose the use of particular types of technology and could be applied to communication and storage of all types of information.

5. Technological neutrality is particularly important in view of the speed of technological innovation and development, and helps ensure that the law is able to accommodate future developments and does not quickly become dated. One of the consequences of the approach taken by the Convention, similarly to the UNCITRAL Model Law on Electronic Commerce,[1] which preceded the Convention, is the adoption of new terminology, aimed to avoiding any reference to particular technical means of transmission or storage of information. Indeed, language that directly or indirectly excludes any form or medium by way of a limitation in the scope of the Convention would run counter to the purpose of providing truly technologically neutral rules. Lastly, technological neutrality encompasses also "media neutrality": the focus of the Convention is to facilitate "paperless" means of communication by offering criteria under which they can become equivalents of paper documents, but the Convention is not intended to alter traditional rules on paper-based communications or create separate substantive rules for electronic communications.

6. The concern to promote media neutrality raises other important points. In the world of paper documents it is impossible to guarantee absolute security against fraud and transmission errors. The same risk exists in principle for electronic communications. Conceivably, the law could attempt to mirror the stringent security measures that are used in communication between computers. However, it may be more appropriate to graduate security requirements in steps similar to the degrees of legal security encountered in the paper world, and to respect the gradation, for example, of the different levels of hand-written signature seen in documents of simple contracts and notarized acts. Hence the flexible notion of reliability "appropriate for the purpose for which the electronic communication was generated" as set out in article 9 (see A/CN.9/608/Add.2, paras. 33-37).

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[1] For the text of the Model Law, see General Assembly resolution 51/162 of 16 December 1996, annex. The text is also published in the *Official Records of the General Assembly, Fifty-first Session, Supplement No. 17* (A/51/17), annex I (also published in the *UNCITRAL Yearbook*, vol. XXVII:1996 (United Nations publication, Sales No. E.98.V.7), part three, annex I). The Model Law and its accompanying Guide to Enactment have been published as United Nations publication, Sales No. E.99.V.4, and are available in electronic form at the UNCITRAL website (http://www.uncitral.org/english/texts/electcom/ml-ecomm.htm).

Functional equivalence

7. The Convention is based on the recognition that legal requirements prescribing the use of traditional paper-based documentation constitute a significant obstacle to the development of modern means of communication. An electronic communication, in and of itself, cannot be regarded as an equivalent of a paper document because it is of a different nature and does not necessarily perform all conceivable functions of a paper document. Indeed, while paper-based documents are readable by the human eye, electronic communications are not—unless printed to paper or displayed on a screen. The Convention deals with possible impediments to the use of electronic commerce posed by domestic or international form requirements by way of an extension of the scope of notions such as "writing", "signature" and "original", with a view to encompassing computer-based techniques.

8. In pursuing that purpose, the Convention relies on the "functional equivalent approach" already used by UNCITRAL in the Model Law on Electronic Commerce. The functional equivalent approach is based on an analysis of the purposes and functions of the traditional paper-based requirement with a view to determining how those purposes or functions could be fulfilled through electronic-commerce techniques. The Convention does not attempt to define a computer-based equivalent to any particular kind of paper document. Instead, it singles out basic functions of paper-based form requirements, with a view to providing criteria which, once they are met by data messages, enable such data messages to enjoy the same level of legal recognition as corresponding paper documents performing the same function.

9. The Convention is intended to permit States to adapt their domestic legislation to developments in communications technology applicable to trade law without necessitating the wholesale removal of the paper-based requirements themselves or disturbing the legal concepts and approaches underlying those requirements.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 160-163
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, para. 10
WG.IV, 43rd session (New York, 15-19 March 2004)	A/CN.9/548, para. 82

CHAPTER I. SPHERE OF APPLICATION

Article 1. Scope of application

1. This Convention applies to the use of electronic communications in connection with the formation or performance of a contract between parties whose places of business are in different States.

2. The fact that the parties have their places of business in different States is to be disregarded whenever this fact does not appear either from the contract or from any dealings between the parties or from information disclosed by the parties at any time before or at the conclusion of the contract.

3. Neither the nationality of the parties nor the civil or commercial character of the parties or of the contract is to be taken into consideration in determining the application of this Convention.

I. Substantive scope of application

10. The primary purpose of the Convention is to facilitate international trade by removing possible legal obstacles or uncertainty concerning the use of electronic communications in connection with the formation or performance of contracts concluded between parties located in different countries. However, the Convention does not deal with substantive law issues related to the formation of contracts or with the rights and obligations of the parties to a contract concluded by electronic means. By and large, international contracts are subject to domestic law, except for the very few types of contract to which a uniform law applies, such as sales contracts falling under the United Nations Sales Convention. In preparing the Convention, UNCITRAL therefore was mindful of the need to avoid creating a duality of regimes for contract formation: a uniform regime for electronic contracts under the new Convention and a different, not harmonized regime, for contract formation by any other means (A/CN.9/527, para. 76).

11. UNCITRAL nevertheless recognized that a strict separation between technical and substantive issues in the context of electronic commerce is not always feasible or desirable. Since the Convention is intended to offer practical solutions to issues related to the use of electronic means of communication for commercial contracting, a few substantive rules were needed beyond the mere reaffirmation of the principle of functional equivalence (A/CN.9/527, para. 81). Examples of provisions that highlight the interplay between technical and substantive rules include article 6 (location of parties), article 9 (form requirements), article 10 (time and place of dispatch and receipt of electronic communications), article 11 (invitations to make offers) and article 14 (errors in electronic communications). As much as possible, however, these provisions focus only on particular issues raised by the use of electronic communications, leaving aspects of substantive law to other regimes such as the United Nations Sales Convention (A/CN.9/527, paras. 77 and 102).

"in connection with the formation or performance of a contract"

12. The Convention applies to any exchange of electronic communications related to the formation or performance of a contract. The Convention is meant also to apply to communications that are made at a time when no contract—and possibly not even negotiation of a contract—has yet come into being (A/CN.9/548, para. 84). Article 11, dealing with invitations to make offers, is an example of such a case. However, the Convention is not confined to the context of contract formation, as electronic communications are used for the exercise of a variety of rights arising out of the contract (such as notices of receipt of goods, notices of claims for failure to perform or notices of termination) or even for performance, as in the case of electronic fund transfers (A/CN.9/509, para. 35).

13. The focus of the Convention is on the relations between the parties to an existing or contemplated contract. Thus, the Convention is not intended to apply to the exchange of communications or notices between the parties to a contract and third parties, merely because those communications have a "connection" to a contract covered by the Convention when the dealings between those parties are not themselves subject to the Convention. For example, if domestic law requires notification to a public authority in respect of a contract to which the Convention applies (for instance, in order to obtain an export licence), the Convention does not

apply to the form in which the domestic notification can be made (A/CN.9/548, para. 83).

14. In the context of the Convention, the word "contract" should be understood broadly so as to cover any form of legally binding agreement between two parties that is not explicitly or implicitly excluded from the Convention, whether or not the word "contract" is used by the law or the parties to refer to the agreement in question. Thus, the Convention applies to an arbitration agreement in electronic form, even though the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (New York, 1958)[2] (the "New York Convention") and most domestic laws do not use the word "contract" to refer to them (see A/60/17, para. 23).

"parties" and "places of business"

15. As used in the Convention, the word "parties" includes both natural persons and legal entities. However, a few provisions of the Convention refer specifically to "natural persons" (for instance, art. 14).

16. The Convention applies to international contracts regardless of their nature and qualification under domestic law. However, the reference to "places of business" in article 1 provides a general indication of the trade-related nature of the contracts to which the Convention is intended to apply (see further paras. 27-31 below).

2. Geographic scope of application

17. The Convention is only concerned with international contracts so as not to interfere with domestic law (A/CN.9/509, para. 31; A/CN.9/528, para. 33). For the purposes of the Convention, a contract is international if the parties have their places of business in different States, but the Convention does not require that both States should be Contracting States of the Convention, so long as the law of a Contracting State applies to the dealings of the parties (A/CN.9/571, para. 19).

18. The definition of the geographic scope of application of the Convention differs, therefore, from the general rule in article 1 (a) of the United Nations Sales Convention, which—for those States that have excluded the application of the United Nations Sales Convention by virtue of the rules of private international law—makes that Convention applicable only if both parties are located in Contracting States. However, the definition of the Convention's geographic field of application is not entirely new, and has been used, for example, in article 1 of the Uniform Law on the International Sale of Goods adopted by the Convention relating to a Uniform Law on the International Sale of Goods (The Hague, 1964).[3]

19. In the context of the United Nations Sales Convention, the need for both countries involved to be Contracting States was introduced to allow the parties to determine easily whether or not the Convention applies to their contract, without

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[2] United Nations, *Treaty Series*, vol. 330, No. 4739.

[3] For the text of the Convention, see the *Final Act of the Diplomatic Conference on the Unification of Law Governing the International Sale of Goods*, published in the "*Records and Documents of the Diplomatic Conference on the Unification of Law Governing the International Sale of Goods, The Hague, 2-25 April 1964*," vol. I, Records, pp. 327-330.

having to resort to rules of private international law to identify the applicable law. The possibly narrower geographic field of application offered by that option was compensated for by the advantage of the enhanced legal certainty it provided. UNCITRAL had initially contemplated for the new Convention a rule similar to paragraph 1 (a) of article 1 of the United Nations Sales Convention to ensure consistency between the two texts (A/CN.9/509, para. 38). However, as the deliberations progressed and the impact of the Convention became clearer, the need for parallelism between the Convention and the United Nations Sales Convention was questioned since it was felt that their respective scopes of application were in any event independent of each other (A/CN.9/548, para. 89).

20. Two main reasons eventually led UNCITRAL to do away with the requirement of double participation in the Convention. First, it was felt that the application of the Convention would be simplified and its practical reach greatly enhanced if it were simply to apply to international contracts, that is, contracts between parties in two different States, without the cumulative requirement that both those States should also be Contracting States of the Convention (A/CN.9/548, para. 87). Second, UNCITRAL considered that, to the extent that several provisions of the Convention are intended to support or facilitate the operation of other laws in an electronic environment (such as, for example, arts. 8 and 9), requiring that both parties be located in Contracting States would lead to the undesirable result that a court in a Contracting State might be mandated to interpret the provisions of its own laws (for instance, in respect of form requirements) in different ways, depending on whether or not both parties to an international contract were located in contracting States of the Convention (A/CN.9/548, para. 87; see also A/CN.9/571, para. 17).

21. Contracting States may however reduce the reach of the Convention by declarations made under article 19, for example by declaring that they will apply the Convention only to electronic communications exchanged between parties located in Contracting States (see A/CN.9/608/Add.4, paras. 27-37).

3. Relationship to private international law

22. It was understood by UNCITRAL that the Convention applies when the law of a Contracting State is the law applicable to the dealings between the parties. Whether the law of a Contracting State applies to a transaction is a question to be determined by the rules of private international law of the forum State, if the parties have not validly chosen the applicable law (A/60/17, para. 20). Accordingly, if a party seizes the court of a non-Contracting State, the court would refer to the private international law rules of the State in which it is located, and if those rules designate the law of a Contracting State to the Convention, the Convention would apply as part of the substantive law of that State, notwithstanding that the State of the court seized was not a Party to the Convention. If a party seizes the court of a Contracting State, the court would equally refer to its own rules of private international law and, if they designate the substantive law of that State or of any other State Party to the convention, the Convention would apply. In either case the court should take into account any possible declarations made pursuant to article 19 or 20 by the Contracting State whose law applies.

23. The Convention contains rules of private law applicable to contractual relations. Nothing in the Convention creates any obligation for States that do not ratify or accede to the Convention. The courts in a non-Contracting State will apply

the provisions of the Convention only when their own rules of private international law indicate that the law of a Contracting State is applicable, in which case the convention would apply as part of that foreign State's legal system. The application of foreign law is a common result of any system of private international law and has been traditionally accepted by most countries. The Convention has not introduced any new element to this situation (A/60/17, para. 19).

4. International nature disregarded when not apparent

24. Paragraph 2 of article 1 contains a rule similar to article 1, paragraph 2, of the United Nations Sales Convention. According to this provision, the Convention does not apply to an international contract when it is not apparent either from the contract or from the dealings between the parties that they are located in two different States. In those cases, the Convention gives way to the application of domestic law. The incorporation of this rule in the Convention is intended to protect the legitimate expectations of parties that assume to operate under their domestic regime given the absence of a clear indication to the contrary (A/CN.9/528, para. 45).

5. "Civil" or "commercial" character, as well as nationality of the parties, are irrelevant

25. As is the case for the United Nations Sales Convention, the application of the Convention does not depend on whether the parties are considered "civil" or "commercial". Therefore, for the purpose of determining the scope of the Convention, it does not matter whether a party is a merchant or not in a particular legal system that applies special rules to commercial contracts different from the general rules of contract law. The Convention avoids conflicts that arise between the so-called "dualistic" systems, which distinguish between the civil and commercial character of the parties or the transaction, and "monistic" legal systems, which do not make this distinction.

26. The nationality of the parties is also irrelevant. Thus, the Convention applies to nationals of non-Contracting States who have their places of business within a Contracting State and even a non-Contracting State, as long as the law applicable to the contract is the law of a Contracting State. Under certain circumstances, a contract between two nationals of the same State may also be governed by the Convention, for instance because one of the parties has its place of business or habitual residence in a different country and this fact was known to the other party.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 16-24
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 14-27
WG.IV, 43rd session (New York, 15-19 March 2004)	A/CN.9/548, paras. 71-97
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 32-48
WG.IV, 40th session (Vienna, 14-18 October 2002)	A/CN.9/527, paras. 73-81
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 28-40

Article 2. Exclusions

1. This Convention does not apply to electronic communications relating to any of the following:

(a) Contracts concluded for personal, family or household purposes;

(b) (i) Transactions on a regulated exchange; (ii) foreign exchange transactions; (iii) inter-bank payment systems, inter-bank payment agreements or clearance and settlement systems relating to securities or other financial assets or instruments; (iv) the transfer of security rights in, sale, loan or holding of or agreement to repurchase securities or other financial assets or instruments held with an intermediary.

2. This Convention does not apply to bills of exchange, promissory notes, consignment notes, bills of lading, warehouse receipts or any transferable document or instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money.

1. Contracts for personal, family or household purposes

27. As is the case for other instruments previously prepared by UNCITRAL, the Convention does not apply to contracts concluded for "personal, family or household purposes".

Rationale of exclusion

28. There was general agreement within UNCITRAL on the importance of excluding contracts negotiated for personal, family or household purposes since a number of rules in the Convention would not be appropriate in their context.

29. For example, a rule such as that contained in article 10, paragraph 2, which presumes receipt of an electronic communication from the moment that the electronic communication becomes capable of being retrieved by the addressee, might not be appropriate in the context of transactions involving consumers, because consumers could not be expected to check their electronic mails regularly nor be able to distinguish easily between legitimate commercial messages and unsolicited mail ("spam"). It was considered that individuals acting for personal, family or household purposes should not be held to the same standards of diligence as entities or persons engaged in commercial activities (A/CN.9/548, para. 101).

30. Another example of possible tension is the treatment of errors and the consequences of errors in the Convention, which is far from the level of detail that would typically be found in consumer protection rules. Also, consumer protection rules typically require vendors to make the contract terms available to consumers in an accessible manner and specify the conditions under which standard contractual terms and conditions may be enforced against a consumer and when a consumer could be presumed to have expressed his or her consent to terms and conditions incorporated by reference into the contract. None of those issues are dealt with in the Convention in a manner that would offer the degree of protection that consumers enjoy in several legal systems (A/CN.9/548, para. 102).

Exclusion not limited to consumer contracts

31. In the context of the United Nations Sales Convention, the phrase "personal, family or household purposes" is commonly understood as referring to consumer contracts. However, in the context of the Convention, which is not limited to electronic communications related to purchase transactions, the words in subparagraph 1 (a) have a broader meaning and would cover, for example, communications related to contracts governed by family law and the law of succession, such as matrimonial property contracts, to the extent that they are entered into for "personal, family or household purposes" (A/60/17, para. 29).

Absolute nature of exclusion

32. Unlike the corresponding exclusion under article 2, subparagraph (a), of the United Nations Sales Convention, the exclusion of contracts entered for personal, family or household purposes under the Convention is an absolute one, meaning that the Convention does not apply to contracts entered into for personal, family or household purposes, even if the purpose of the contract is not apparent to the other party.

33. According to its article 2, subparagraph (a), the United Nations Sales Convention does not apply to sales of goods bought for personal, family or household use "unless the seller, at any time before or at the conclusion of the contract, neither knew nor ought to have known that the goods were bought for any such use". That qualification was intended to promote legal certainty. Without it, the applicability of the United Nations Sales Convention would depend entirely on the seller's ability to ascertain the purpose for which the buyer had bought the goods. As a result, the personal, family or household purpose of a sales contract cannot be held against the seller, for the purpose of excluding the applicability of the United Nations Sales Convention, if the seller did not know or could not have been expected to know (for instance, having regard to the number or nature of items bought) that the goods were being bought for such purpose. The drafters of the United Nations Sales Convention assumed that there might be situations where a sales contract would fall under that Convention, despite the fact of it having being entered into by a consumer, for example. The legal certainty gained with the provision appeared to have outweighed the risk of covering transactions intended to have been excluded. It was observed, moreover, that, as indicated in the commentary on the Convention on Contracts for the International Sale of Goods, which had been prepared at the time by the Secretariat (A/CONF.97/5),[4] article 2, subparagraph (a), of the United Nations Sales Convention was based on the assumption that consumer transactions were international transactions only in "relatively few cases" (A/CN.9/527, para. 86).

34. In the case of the Convention, however, UNCITRAL felt that the formulation of article 2, subparagraph (a), of the United Nations Sales Convention might be problematic, as the ease of access afforded by open communication systems not available at the time of the preparation of the United Nations Sales Convention, such as the Internet, greatly increased the likelihood of consumers purchasing goods

[4] *Official Records of the United Nations Conference on Contracts for the International Sale of Goods: documents of the Conference and summary records of the plenary meetings and of the meetings of the Main Committee* (United Nations publication, Sales No. E.81.IV.3), p. 16.

from sellers established in another country (A/CN.9/527, para. 87). Having recognized that certain rules of the Convention might not be appropriate in the context of consumer transactions, UNCITRAL agreed that consumers should be completely excluded from the reach of the Convention (A/CN.9/548, paras. 101-102).

2. Specific financial transactions

35. Subparagraph 1 (b) lists a number of transactions excluded from the scope of application of the Convention. They relate essentially to certain financial service markets governed by well-defined regulatory and non-regulatory rules that already address issues relating to electronic commerce in a manner that allows for their effective worldwide functioning. Given the inherently cross-border nature of these markets, UNCITRAL considered that this exclusion should not be left for country-based declarations under article 19 (A/CN.9/527, para. 95; A/CN.9/528, para. 61; A/CN.9/548, para. 109; and A/CN.9/571, para. 61).

36. It should be noted that this provision does not contemplate a broad exclusion of financial services per se, but rather specific transactions such as payment systems, negotiable instruments, derivatives, swaps, repurchase agreements (repos), foreign exchange, securities and bond markets, and possibly general procurement activities of banks and loan activities. The criterion for the exclusion in subparagraph 1 (b) is not the type of the asset being traded but the method of settlement used. In addition, not every regulated trading is excluded but trading under the auspices of a regulated exchange is (e.g. stock exchange, securities and commodities exchange, foreign currency and precious metal exchange). As a result, the use of electronic communications in connection with trading of securities, commodities, foreign currency or precious metals outside a regulated exchange is not necessarily excluded merely because it is in connection with the trading of securities (e.g. an e-mail sent by an investor to his or her broker, instructing the latter to buy or sell securities).

3. Negotiable instruments, documents of title and similar documents

37. Paragraph 2 excludes negotiable instruments and similar documents because the potential consequences of unauthorized duplication of documents of title and negotiable instruments—and generally any transferable instrument that entitles the bearer or beneficiary to claim the delivery of goods or the payment of a sum of money—make it necessary to develop mechanisms to ensure the singularity of those instruments.

38. The issues raised by negotiable instruments and similar documents, in particular the need for ensuring their uniqueness, go beyond simply ensuring the equivalence between paper and electronic forms, which is the main aim of the Convention and justifies the exclusion provided in paragraph 2 of this article. UNCITRAL was of the view that finding a solution for this problem required a combination of legal, technological and business solutions, which had not yet been fully developed and tested (see A/CN.9/571, para. 136; see also A/60/17, para. 27).

4. Individual exclusions

39. During the preparation of the Convention, there were suggestions to include a number of other transactions to the list of excluded matters in article 2, such as contracts that create or transfer rights in real estate (except for rental rights), contracts requiring by law the involvement of courts, public authorities or professions exercising public authority, contracts of suretyship granted by and on collateral securities furnished by persons acting for purposes outside their trade, business or profession and contracts governed by family law or by the law of succession (A/CN.9/548, para. 110).

40. The preponderant view within UNCITRAL was not in favour of the making the proposed exclusions. Some matters would automatically be excluded under article 1, paragraph 1, or article 2, subparagraph (a). Other matters were regarded as territory-specific issues that should be better dealt at the domestic level. UNCITRAL took note of the fact that some States already admitted the use of electronic communications in connection with some, if not all, of the matters contemplated in the proposed exclusions. It was felt that the adoption of an extensive list of exemptions would have the effect of imposing those exclusions even for States that saw no reason for preventing the parties to those transactions from using electronic communications (A/CN.9/571, para. 63), a result which would hinder the adaptation of the law to technological evolution (A/CN.9/571, para. 65). However, States that feel that electronic communications should not be authorized in particular cases still have the option of making individual exclusions by declarations under article 19.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 25-30
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 59-69; see also para. 136
WG.IV, 43rd session (New York, 15-19 March 2004)	A/CN.9/548, paras. 98-111; see also paras. 112-118
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras; 49-64, see also paras. 65-69 (on a related draft article since deleted)
WG.IV, 40th session (Vienna, 14-18 October 2002)	A/CN.9/527, paras. 82-98; see also paras. 99-104 (on a related draft article since deleted)

Article 3. Party autonomy

The parties may exclude the application of this Convention or derogate from or vary the effect of any of its provisions.

1. Extent of power to derogate

41. In preparing the Convention, UNCITRAL was mindful of the fact that, in practice, solutions to the legal difficulties raised by the use of modern means of communication are mostly sought within contracts. The Convention reflects the

view of UNCITRAL that party autonomy is vital in contractual negotiations and should be broadly recognized by the Convention (A/60/17, para. 33).

42. At the same time, it was generally accepted that party autonomy does not extend to setting aside statutory requirements that impose, for instance, the use of specific methods of authentication in a particular context. This is particular important in connection with article 9 of the Convention, which provides criteria under which electronic communications and their elements (e.g. signatures) may satisfy form requirements, which are normally of a mandatory nature since they reflect decisions of public policy. Party autonomy does not allow the parties to relax statutory requirements (for example, on signature) in favour of methods of authentication that provide a lesser degree of reliability than electronic signatures, which is the minimum standard recognized by the Convention (A/CN.9/527, para. 108; see also A/CN.9/571, para. 76).

43. Nevertheless, as provided in article 8, paragraph 2, the Convention does not require the parties to accept electronic communications if they do not want to. This also means, for instance, that the parties may choose not to accept electronic signatures (A/CN.9/527, para. 108).

44. Under the Convention, party autonomy applies only to provisions that create rights and obligations for the parties, and not to the provisions of the Convention that are directed to Contracting States (A/CN.9/571, para. 75).

2. Form of derogation

45. Article 3 is intended to apply not only in the context of relationships between originators and addressees of data messages but also in the context of relationships involving intermediaries. Thus, the provisions of the Convention can be varied either by bilateral or multilateral agreements between the parties, or by system rules agreed to by the parties.

46. It was the understanding of UNCITRAL that derogations from the Convention do not need to be explicitly made but could also be made implicitly, for example by parties agreeing to contract terms at variance with the provisions of the Convention (A/60/17, para. 32; see also A/CN.9/548, para. 123).

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 31-34
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 70-77
WG.IV, 43rd session (New York, 15-19 March 2004)	A/CN.9/548, paras. 119-124
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 70-75
WG.IV, 40th session (Vienna, 14-18 October 2002)	A/CN.9/527, paras. 105-110

CHAPTER II. GENERAL PROVISIONS

Article 4. Definitions

For the purposes of this Convention:

(a) "Communication" means any statement, declaration, demand, notice or request, including an offer and the acceptance of an offer, that the parties are required to make or choose to make in connection with the formation or performance of a contract;

(b) "Electronic communication" means any communication that the parties make by means of data messages;

(c) "Data message" means information generated, sent, received or stored by electronic, magnetic, optical or similar means including, but not limited to, electronic data interchange (EDI), electronic mail, telegram, telex or telecopy;

(d) "Originator" of an electronic communication means a party by whom, or on whose behalf, the electronic communication has been sent or generated prior to storage, if any, but it does not include a party acting as an intermediary with respect to that electronic communication;

(e) "Addressee" of an electronic communication means a party who is intended by the originator to receive the electronic communication, but does not include a party acting as an intermediary with respect to that electronic communication;

(f) "Information system" means a system for generating, sending, receiving, storing or otherwise processing data messages;

(g) "Automated message system" means a computer program or an electronic or other automated means used to initiate an action or respond to data messages or performances in whole or in part, without review or intervention by a natural person each time an action is initiated or a response is generated by the system;

(h) "Place of business" means any place where a party maintains a non-transitory establishment to pursue an economic activity other than the temporary provision of goods or services out of a specific location.

47. Most of the definitions contained in article 4 are based on definitions used in the UNCITRAL Model Law on Electronic Commerce.

"Communication"

48. The definition of "communication" is intended to make clear that the Convention applies to a wide range of exchanges of information between parties to a contract, whether at the stage of negotiations, during performance or after a contract has been performed.

"Electronic communication" and "data message"

49. The definition of "electronic communication" establishes a link between the purposes for which electronic communications may be used and the notion of "data messages", which already appeared in the UNCITRAL Model Law on Electronic Commerce and has been retained in view of the wide range of techniques it encompasses, beyond purely "electronic" techniques (A/CN.9/571, para. 80).

50. The aim of the definition of "data message" is to encompass all types of messages that are generated, stored, or communicated in essentially paperless form. For that purpose, all means of communication and storage of information that might be used to perform functions parallel to the functions performed by the means listed in the definition are intended to be covered by the reference to "similar means", although, for example, "electronic" and "optical" means of communication might not be, strictly speaking, similar. For the purposes of the Convention, the word "similar" connotes "functionally equivalent". The reference to "similar means" indicates that the Convention is not intended only for application in the context of existing communication techniques but also to accommodate foreseeable technical developments.

51. The examples mentioned in the definition of "data message" highlight that this definition covers not only electronic mail but also other techniques that may still be used in the chain of electronic communications, even if some of them (such as telex or telecopy) may not appear to be novel (A/CN.9/571, para. 81). The reference to "Electronic Data Interchange (EDI)" has been retained in the definition of "data messages" for illustrative purposes only, in view of the widespread use of EDI messages in electronic communications of messages from computer to computer. According to the definition of EDI adopted by the Working Party on Facilitation of International Trade Procedures (WP.4) of the Economic Commission for Europe, which is the United Nations body responsible for the development of UN/EDIFACT technical standards, EDI means the electronic transfer from computer to computer of information using an agreed standard to structure the information.

52. The definition of "data message" focuses on the information itself, rather than on the form of its transmission. Thus, for the purposes of the Convention it is irrelevant whether data messages are communicated electronically from computer to computer, or whether data messages are communicated by means that do not involve telecommunications systems, for example, magnetic disks containing data messages delivered to the addressee by courier.

53. The notion of "data message" is not limited to communication but is also intended to encompass computer-generated records that are not meant for communication. Thus, the notion of "message" includes the notion of "record". Lastly, the definition of "data message" is also intended to cover the case of revocation or amendment. A data message is presumed to have a fixed information content but it may be revoked or amended by another data message.

"Originator" and "Addressee"

54. As used in the Convention, the notion of "party" designates the subjects of rights and obligations and should be interpreted as covering both natural persons and corporate bodies or other legal entities. Where only "natural persons" are meant, the Convention expressly uses these words.

55. The definition of "originator" should cover not only the situation where information is generated and communicated, but also the situation where such information is generated and stored without being communicated. However, the definition of "originator" is intended to eliminate the possibility that a recipient who merely stores a data message might be regarded as an originator.

56. The "addressee" under the Model Law is the person with whom the originator intends to communicate by transmitting the electronic communication, as opposed to any person who might receive, forward or copy it in the course of transmission. The "originator" is the person who generated the electronic communication even if that message was transmitted by another person. The definition of "addressee" contrasts with the definition of "originator", which is not focused on intent. It should be noted that, under the definitions of "originator" and "addressee" in the Convention, the originator and the addressee of a given electronic communication could be the same person, for example in the case where the electronic communication was intended for storage by its author. However, the addressee who stores an electronic communication by an originator is not intended to be covered by the definition of "originator".

57. The focus of the Convention is on the relationship between the originator and the addressee, and not on the relationship between either the originator or the addressee and any intermediary. The fact that the Convention does not refer expressly to intermediaries (such as servers or web hosts) does not mean that the Convention ignores their role in receiving, transmitting or storing data messages on behalf of other persons or performing other "value-added services", such as when network operators and other intermediaries format, translate, record, authenticate, certify or preserve electronic communications or provide security services for electronic transactions. However, as the convention was not conceived as a regulatory instrument for electronic business, it does not deal with the rights and obligations of intermediaries.

"Information system"

58. The definition of "information system" is intended to cover the entire range of technical means used for transmitting, receiving and storing information. For example, depending on the factual situation, the notion of "information system" could refer to a communications network, and in other instances could include an electronic mailbox or even a telecopier.

59. For the purposes of the Convention it is irrelevant whether the information system is located on the premises of the addressee or on other premises, since location of information systems is not an operative criterion under the Convention.

"Automated message systems"

60. The notion of "automated message system" refers essentially to a system for automatic negotiation and conclusion of contracts without involvement of a person, at least on one of the ends of the negotiation chain. It differs from an "information system" in that its primary use is to facilitate exchanges leading to contract formation. An automated message system may be part of an information system, but that need not necessarily be the case (A/CN.9/527, para. 113).

61. The critical element in this definition is the lack of a human actor on one or both sides of a transaction. For example, if a party orders goods through a website, the transaction would be an automated transaction because the vendor took and confirmed the order via its machine. Similarly, if a factory and its supplier do business through Electronic Data Interchange, the factory's computer, upon receiving information within certain pre-programmed parameters, will send an electronic order to the supplier's computer. If the supplier's computer confirms the order and processes the shipment because the order falls within pre-programmed parameters in the supplier's computer, this would be a fully automated transaction. If, instead, the supplier relies on a human employee to review, accept, and process the factory's order, then only the factory's side of the transaction would be automated. In either case, the entire transaction falls within the definition.

"Place of business"

62. The definition of "place of business" reflects the essential elements of the notions of "place of business", as understood in international commercial practice, and "establishment", as used in article 2, subparagraph (f), of the UNCITRAL Model Law on Cross-Border Insolvency (A/CN.9/527, para. 120). This definition has been included to support the operation of articles 1 and 6 of the Convention and is not intended to affect other substantive law relating to places of business (A/60/17, paras. 37 and 90).

63. The notion of "non-transitory" qualifies the word "establishment", whereas the words "other than the temporary provision of goods or services" qualify the nature of the "economic activity" (A/CN.9/571, para. 87).

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 35-37
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 78-89
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 76-77
WG.IV, 40th session (Vienna, 14-18 October 2002)	A/CN.9/527, paras. 111-122

Article 5. Interpretation

1. In the interpretation of this Convention, regard is to be had to its international character and to the need to promote uniformity in its application and the observance of good faith in international trade.

2. Questions concerning matters governed by this Convention which are not expressly settled in it are to be settled in conformity with the general principles on which it is based or, in the absence of such principles, in conformity with the law applicable by virtue of the rules of private international law.

64. The principles reflected in this article have appeared in most of the UNCITRAL texts, and its formulation mirrors article 7 of the United Nations Sales Convention. The provision is aimed at facilitating uniform interpretation of the provisions in uniform instruments on commercial law. It follows a practice in private law treaties to provide self-contained rules of interpretation, without which

the reader would be referred to general rules of public international law on the interpretation of treaties that might not be entirely suitable for the interpretation of private law provisions (A/CN.9/527, para. 124).

References to preparatory work

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 38-39
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 90-91
WG.IV, 41st session (New York, 5-9 May 2003	A/CN.9/528, paras. 78-80
WG.IV, 40th session (Vienna, 14-18 October 2002)	A/CN.9/527, paras. 123-126

Article 6. Location of the parties

1. For the purposes of this Convention, a party's place of business is presumed to be the location indicated by that party, unless another party demonstrates that the party making the indication does not have a place of business at that location.

2. If a party has not indicated a place of business and has more than one place of business, then the place of business for the purposes of this Convention is that which has the closest relationship to the relevant contract, having regard to the circumstances known to or contemplated by the parties at any time before or at the conclusion of the contract.

3. If a natural person does not have a place of business, reference is to be made to the person's habitual residence.

4. A location is not a place of business merely because that is: (a) where equipment and technology supporting an information system used by a party in connection with the formation of a contract are located; or (b) where the information system may be accessed by other parties.

5. The sole fact that a party makes use of a domain name or electronic mail address connected to a specific country does not create a presumption that its place of business is located in that country.

1. Purpose of the article

65. The purpose of the draft article is to offer elements that allow the parties to ascertain the location of the places of business of their counterparts, thus facilitating a determination, among other elements, as to the international or domestic character of a transaction and the place of contract formation. As such, this article is one of the central provisions in the Convention.

66. Considerable legal uncertainty is caused at present by the difficulty of determining where a party to an online transaction is located. While that danger has always existed, the global reach of electronic commerce has made it more difficult than ever to determine location. This uncertainty could have significant legal consequences, since the location of the parties is important for issues such as jurisdiction, applicable law and enforcement. Accordingly, there was wide

agreement within UNCITRAL as to the need for provisions that facilitate a determination by the parties of the places of business of the persons or entities they have commercial dealings with (A/CN.9/509, para. 44).

2. Nature of presumption of location

67. At the early stages of its deliberations, UNCITRAL had considered the possibility of including a positive duty for the parties to disclose their places of business or provide other information. However, it was eventually agreed that inclusion of such an obligation would be inappropriate placed in a commercial law instrument, in view of the difficulty of setting out the consequences of failing to comply with such an obligation (A/60/17, para. 43).

68. Accordingly, the current text of the draft merely creates a presumption in favour of a party's indication of its place of business, which is accompanied by conditions under which that indication can be rebutted and default provisions that apply if no indication has been made. The article is not intended to allow parties to invent fictional places of business that do not meet the requirements of article 4, subparagraph (h) (A/60/17, para. 41). This presumption, therefore, is not absolute, and the Convention does not uphold an indication of a place of business by a party even where such an indication is inaccurate or intentionally false (A/CN.9/509, para. 47).

69. The rebuttable presumption of location established by paragraph 1 serves important practical purposes and is not meant to depart from the notion of "place of business", as used in non-electronic transactions. For example, an Internet vendor maintaining several warehouses at different locations from which different goods might be shipped to fulfil a single purchase order effected by electronic means might see a need to indicate one of such locations as its place of business for a given contract. The current draft recognizes that possibility, with the consequence that such an indication could only be challenged if the vendor does not have a place of business at the location it indicated. Without that possibility, the parties might need to enquire, in respect of each contract, which of the vendor's multiple places of business has the closest connection to the relevant contract in order to determine what is the vendor's place of business in that particular case (A/CN.9/571, para. 98). If a party has only one place of business and has not made any indication, it would be deemed to be located at the place that meets the definition of "place of business" under article 4, subparagraph (h).

3. Plurality of places of business

70. Paragraph 2 is based on article 10, subparagraph (a), of the United Nations Sales Convention. However, unlike that provision, which refers to a place of business that has "the closest relationship to the contract and its performance", article 6, paragraph 2, of the Convention refers only to the closest relationship to the contract. In the context of the United Nations Sales Convention the cumulative reference to the contract and its performance had given rise to uncertainty, since there might be situations where a given place of business of one of the parties is more closely connected to the contract, but another of that party's places of business is more closely connected to the performance of the contract. These situations are not rare in connection with contracts entered into by large multinational companies and may become even more frequent as a result of the current trend towards

increased decentralization of business activities (A/CN.9/509, para. 51; see also A/CN.9/571, para. 101). It was felt that this minor departure from similar wording in the United Nations Sales Convention, would not generate an undesirable duality of regimes in view of the limited scope of the Convention (A/CN.9/571, para. 101).

71. The application of paragraph 2 would be triggered by the absence of a valid indication of a place of business. The default rule provided here applies not only when a party fails to indicate its place of business, but also when such indication has been rebutted under paragraph 1 (A/60/17, para. 46).

4. Place of business of natural persons

72. This paragraph does not apply to legal entities, since it is generally understood that only natural persons are capable of having a "habitual residence".

5. Limited value of communication technology and equipment for establishing place of business

73. UNCITRAL carefully avoided devising rules that would result in any given party being considered as having its place of business in one country when contracting electronically and in another country when contracting by more traditional means (A/CN.9/484, para. 103).

74. Therefore, the Convention takes a cautious approach to peripheral information related to electronic messages, such as IP addresses, domain names or the geographic location of information systems, which despite their apparent objectivity have little, if any, conclusive value for determining the physical location of the parties. Paragraph 4 reflects that understanding by providing that the location of equipment and technology supporting an information system or the places from where the information system may be accessed by other parties do not by themselves constitute a place of business. However, nothing in the Convention prevents a court or arbitrator from taking into account the assignment of a domain name as a possible element, among others, to determine a party's location, where appropriate (A/CN.9/571, para. 113).

75. UNCITRAL acknowledged that there might be legal entities, such as so-called "virtual companies", whose establishment might not meet all requirements of the definition of "place of business" in article 4, subparagraph (h). It was also noted that some business sectors increasingly regarded their technology and equipment as significant assets. However, it was felt that it would be difficult to attempt to formulate universally acceptable criteria for a default rule on location to cover those situations, in view of the variety of options available (e.g. place of incorporation, place of principal management, among others), location of equipment technology being only one—and not necessarily the most significant—of these factors. In any event, if an entity does not have a place of business, the Convention would not apply to its communications under article 1, which depends on transactions applying between parties having their places of business in different States (A/CN.9/571, para. 103).

76. Paragraph 5 reflects the fact that the current system for assignment of domain names was not originally conceived in geographical terms. Therefore, the apparent connection between a domain name and a country is often insufficient to conclude that there is a genuine and permanent link between the domain name user and the

country. Also, differences in national standards and procedures for the assignment of domain names make them unfit for establishing a presumption, while the insufficient transparency of the procedures for assigning domain names in some jurisdictions make it difficult to ascertain the level of reliability of each national procedure (A/CN.9/571, para. 112).

77. UNCITRAL nevertheless recognized that, in some countries, the assignment of domain names is only made after verification of the accuracy of the information provided by the applicant, including its location in the country to which the relevant domain name related. For those countries, it might be appropriate to rely, at least in part, on domain names for the purpose of article 6 (A/CN.9/509, para. 58; see also A/CN.9/571, para. 111). Therefore, paragraph 5 only prevents a court or arbitrator from inferring the location of a party from the sole fact that the party uses a given domain name or address. Nothing in the draft paragraph prevents a court or arbitrator from taking into account the assignment of a domain name as a possible element, among others, to determine a party's location, where appropriate (A/CN.9/571, para. 113).

78. The formulation of paragraph 5 is not open-ended, as the provision is concerned with certain existing technologies in respect of which UNCITRAL was of the view that they do not offer, in and of themselves, a sufficiently reliable connection to a country so as to authorize a presumption of a party's location. It would have been unwise for UNCITRAL to rule out the possibility that new as yet undiscovered technologies may appropriately create a strong presumption as to a party's location in a country to which the technology used would be connected (A/60/17, para. 47).

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 40-47
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 92-114
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 81-93
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 41-59

Article 7. Information requirements

Nothing in this Convention affects the application of any rule of law that may require the parties to disclose their identities, places of business or other information, or relieves a party from the legal consequences of making inaccurate, incomplete or false statements in that regard.

1. Information requirements in electronic commerce

79. Article 7 reminds the parties of the need to comply with possible disclosure obligations that might exist under domestic law. UNCITRAL considered at length various proposals that contemplated a duty for the parties to disclose their places of business, among other information (A/CN.9/484, para. 103; A/CN.9/509, paras. 60-65). UNCITRAL was sensitive to possible gains in legal certainty, transparency and confidence in electronic commerce that might result from promoting good business standards, such as basic disclosure requirements (A/CN.9/546, para. 91).

80. However, the consensus that eventually emerged was that it would be preferable to address the matter from a different angle, namely by a provision that recognizes the possible existence of disclosure requirements under the substantive law governing the contract and reminds the parties of their obligations to comply with such requirements (A/60/17, para. 49).

81. UNCITRAL recognized that trading partners acting in good faith would normally be expected to provide accurate and truthful information concerning the location of their places of business. The legal consequences of false or inaccurate representations made by them are not primarily a matter of contract formation, but rather a matter of criminal or tort law. To the extent that those questions are dealt with in most legal systems, they would be governed by the applicable law outside the draft convention (A/CN.9/509, para. 48).

82. It was also felt that obligations to disclose certain information would be more appropriately placed in international industry standards or guidelines, rather than in an international convention dealing with electronic contracting. Another possible source of rules of that nature might be domestic regulatory regimes governing the provision of online services, especially under consumer protection regulations. The inclusion of disclosure requirements in the Convention was regarded as particularly problematic since the Convention could not provide for the consequences that might flow from failure by a party to comply with them. On the one hand, rendering commercial contracts invalid or unenforceable for failure to comply with the draft article was said to be an undesirable and unreasonably intrusive solution. On the other hand, providing for other types of sanctions, such as tort liability or administrative sanctions, would have been clearly outside the scope of the Convention (A/CN.9/509, para. 63; see also A/CN.9/546, paras. 92-93).

83. Another reason for deferring to domestic law on the matter was that no similar obligations exist for business transactions in a non-electronic environment so that the interest of promoting electronic commerce would not be served by subjecting it to such special obligations. Under most circumstances, the parties would have a business interest in disclosing their names and places of business, without needing to be required to do so by law. However, in particular situations, such as in certain financial markets or in business models such as Internet auction platforms, it is common for both sellers and buyers to identify themselves only through pseudonyms or codes throughout the negotiating or bidding phase. There are also systems involving trading intermediaries where the identity of the ultimate supplier is not disclosed to potential buyers. The parties in those cases may have various legitimate reasons for not disclosing their identities, including their negotiating strategy (A/CN.9/546, para. 93)

2. Nature of legal information requirements

84. The phrase "any rule of law" in this article has the same meaning as the words "the law" in article 9. They encompass statutory, regulatory and judicially created laws as well as procedural laws but do not cover laws that have not become part of the law of the State, such as lex mercatoria, even though the expression "rules of law" is sometimes used in that broader meaning.

85. Given the nature of this article, which defers to domestic law on disclosure requirements, these requirements remain applicable even if the parties attempt to escape them by excluding the application of this article (A/CN.9/546, para. 104).

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 48-50
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 115-116
WG.IV, 42nd session (Vienna, 17-21 November 2003)	A/CN.9/546, paras. 87-105 (at that time article 11)
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 60-65

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Legal aspects of electronic commerce

Explanatory Note on the Convention on the Use of Electronic Communications in International Contracts

Note by the Secretariat

Addendum

1. The Commission approved the final draft of the United Nations Convention on the Use of Electronic Communications in International Contracts ("the Convention") at its thirty-eighth session (Vienna, 4-15 July 2005). The Convention was subsequently adopted by the General Assembly on 23 November 2005 and opened it for signature from 16 January 2006 to 16 January 2008.

2. When it approved the final draft for adoption by the General Assembly, at its thirty-eighth session, the Commission requested the Secretariat to prepare explanatory notes on the Convention and present them to the Commission at its thirty-ninth session (see A/60/17, para. 165).

3. Annex I to this note contains article-by-article remarks on the Convention. The Commission may wish to take note of the explanatory notes and request their publication by the Secretariat, together with the final text of the Convention.

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IV. Article-by-article remarks (*continued*)

CHAPTER III. USE OF ELECTRONIC COMMUNICATIONS IN INTERNATIONAL CONTRACTS

Article 8. Legal recognition of electronic communications

1. A communication or a contract shall not be denied validity or enforceability on the sole ground that it is in the form of an electronic communication.

2. Nothing in this Convention requires a party to use or accept electronic communications, but a party's agreement to do so may be inferred from the party's conduct.

1. Non-discrimination of electronic communications

1. Paragraph 1 of this article restates the general principle of non-discrimination that is contained in article 5 of the UNCITRAL Model Law on Electronic Commerce. This provision means that there should be no disparity of treatment between electronic communications and paper documents, but is not intended to override any of the requirements contained in article 9. By stating that "information shall not be denied validity or enforceability solely on the grounds that it is in the form of an electronic communication", article 8, paragraph 1, merely indicates that the form in which certain information is presented or retained cannot be used as the only reason for which that information would be denied legal effectiveness, validity or enforceability. However, this provision should not be misinterpreted as establishing the absolute legal validity of any given electronic communication or of any information contained therein (A/CN.9/546, para. 41).

2. No specific rule has been included in the Convention on the time and place of formation of contracts in cases where an offer or the acceptance of an offer is expressed by means of electronic communications message, in order not to interfere with national law applicable to contract formation. UNCITRAL was of the view that such a provision would exceed the aim of the Convention, which is limited to providing that electronic communications would achieve the same degree of legal certainty as paper-based communications. The combination of existing rules on the formation of contracts with the provisions contained in article 10 is designed to dispel uncertainty as to the time and place of formation of contracts in cases where the offer or the acceptance are exchanged electronically (see below, paras. 43-64).

2. Consent to use electronic communications

3. Provisions similar to paragraph 2 have been included in a number of national laws relating to electronic commerce to highlight the principle of party autonomy and make it clear that the legal recognition of electronic communications does not require a party to use or accept them (A/60/17, para. 52; see also A/CN.9/527, para. 108).

4. However, the consent to use electronic communications does not need to be expressly indicated or be given in any particular form. While absolute certainty can be accomplished by obtaining an explicit contract before relying on electronic communications, such an explicit contract should not be necessary. Indeed, such a requirement would itself be an unreasonable barrier to electronic commerce. Under the Convention, the consent to use electronic communications is to be found from all circumstances, including the parties' conduct. Examples of circumstances from which it may be found that a party has agreed to conduct transactions electronically include the following: handing out a business card with a business e-mail address; inviting a potential client to visit a company's website or accessing someone's website to place an order; advertising goods over the Internet or through e-mail.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 51-53
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 117-122
WG.IV, 42nd session (Vienna, 17-21 November 2003)	A/CN.9/546, paras. 44-45
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 94-108; see also paras. 121-131 (on related draft provisions since deleted)
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 86-92; see also paras. 66-73 (on related draft provisions since deleted)

Article 9. Form requirements

1. Nothing in this Convention requires a communication or a contract to be made or evidenced in any particular form.

2. Where the law requires that a communication or a contract should be in writing, or provides consequences for the absence of a writing, that requirement is met by an electronic communication if the information contained therein is accessible so as to be usable for subsequent reference.

3. Where the law requires that a communication or a contract should be signed by a party, or provides consequences for the absence of a signature, that requirement is met in relation to an electronic communication if:

(a) A method is used to identify the party and to indicate that party's intention in respect of the information contained in the electronic communication; and

(b) The method used is either:

(i) As reliable as appropriate for the purpose for which the electronic communication was generated or communicated, in

the light of all the circumstances, including any relevant agreement; or

(ii) Proven in fact to have fulfilled the functions described in subparagraph (a) above, by itself or together with further evidence.

4. Where the law requires that a communication or a contract should be made available or retained in its original form, or provides consequences for the absence of an original, that requirement is met in relation to an electronic communication if:

(a) There exists a reliable assurance as to the integrity of the information it contains from the time when it was first generated in its final form, as an electronic communication or otherwise; and

(b) Where it is required that the information it contains be made available, that information is capable of being displayed to the person to whom it is to be made available.

5. For the purposes of paragraph 4 (a):

(a) The criteria for assessing integrity shall be whether the information has remained complete and unaltered, apart from the addition of any endorsement and any change which arises in the normal course of communication, storage and display; and

(b) The standard of reliability required shall be assessed in the light of the purpose for which the information was generated and in the light of all the relevant circumstances.

1. General remarks

5. Like the UNCITRAL Model Law on Electronic commerce, on which it is based, the Convention relies on what has become known as the "functional equivalence approach" (see A/CN.9/608/Add.1, paras. 7-9) with a view to determining how the purposes or functions of paper-based documents could be fulfilled through electronic-commerce techniques. For example, a paper document may serve any of the following functions: to ensure that a record would be legible by all; to ensure that a record would remain unaltered over time; to allow for the reproduction of a document so that each party would hold a copy of the same data; to allow for the authentication of data by means of a signature; and to provide that a document would be in a form acceptable to public authorities and courts.

6. In respect of all of the above-mentioned functions of paper, electronic records can provide the same level of security as paper and, in most cases, a much higher degree of reliability and speed, especially with respect to the identification of the source and content of the data, provided that a number of technical and legal requirements are met. However, the adoption of the functional-equivalent approach should not result in imposing on users of electronic commerce more stringent standards of security (and the costs associated with them) than in a paper-based environment.

7. The functional-equivalent approach has been taken in article 9 of the Convention with respect to the concepts of "writing", "signature" and "original" but not with respect to other legal concepts dealt with by domestic law. For example, the Convention does not attempt to create a functional equivalent of existing storage requirements, because record storage requirements often serve administrative and regulatory objectives in connection with matters not directly related to the formation or performance of private contracts (such as taxation, monetary regulation, or customs controls). In view of the public policy considerations related to those objectives, and the varying degree of technological development in different countries, it was felt that record storage should be left outside the scope of the Convention.

2. Freedom of form

8. Paragraph 1 reflects the general principle of freedom of form, as stated in article 11 of the United Nations Sales Convention, with a view to making it clear that the reference to possible form requirements under other law does not imply that the Convention itself establishes any form requirement.

9. Nevertheless, the Convention recognizes that form requirements exist and that they may limit the ability of the parties to choose their means of communication. The Convention offers criteria under which electronic communications can meet general form requirements. However, nothing in the Convention implies that the parties have an unlimited right to use the technology or medium of their choice in connection with formation or performance of any type of contract, so as not to interfere with the operation of rules of law that may require, for instance, the use of specific authentication methods in connection with particular types of contract (A/CN.9/571, para. 119).

10. The Convention does not link the validity of an electronic communication or a contract concluded through electronic means to the use of an electronic signature, as most legal systems do not impose a general signature requirement as a condition for the validity of all types of contract (A/CN.9/571, para. 118)

3. Notion of legal requirement

11. In certain common law countries the words "the law" would normally be interpreted as referring to common law rules, as opposed to statutory requirements, while in some civil law jurisdictions the word "the law" is typically used to refer narrowly to legislation enacted by Parliament. In the context of the Convention, however, the words "the law" refer to those various sources of law and are intended to encompass not only statutory or regulatory law, including international conventions or treaties ratified by a Contracting State, but also judicially created law and other procedural law.

12. However, the words "the law" do not include areas of law that have not become part of the law of a State and are sometimes referred to by expressions such as "*lex mercatoria*" or "law merchant" (A/60/17, para. 58). This is a corollary of the principle of party autonomy. To the extent that trade usages and practices develop through industry standards, model contracts and guidelines, it should be left for the drafters and users of those instruments to consider when and under what circumstances electronic communications should be admitted or promoted in the

context of those instruments. Parties who incorporate into their contracts standard industry terms that do not expressly contemplate electronic communications remain free to adapt the standard terms to their concrete needs.

13. Although the article does not refer to the "applicable" law, it is understood, in the light of criteria used to define the geographic field of application of the Convention, that the "law" referred to in this article is the law that applies to the dealings between the parties in accordance with the relevant rules of private international law.

4. Relationship to article 5

14. As indicated above, the principle of party autonomy does not empower the parties to displace legal form requirements by agreeing to use a standard lower than what is provided in article 9 (see A/CN.9/608/Add.1, para. 42). The provisions on general form requirements in the Convention are only facilitative in nature. The consequences of parties using different methods would simply be that they would not be able to meet the form requirements contemplated under article 9 (A/CN.9/548, para. 122).

5. Written form

15. Paragraph 2 defines the basic standard that electronic communications need to meet in order to satisfy a requirement that information be retained or presented "in writing" (or that the information be contained in a "document" or other paper-based instrument).

16. In the preparation of the Convention, UNCITRAL paid attention to the functions traditionally performed by various kinds of "writings" in a paper-based environment. National laws require the use of "writings" for various reasons, such as: (1) to ensure that there would be tangible evidence of the existence and nature of the intent of the parties to bind themselves; (2) to help the parties be aware of the consequences of their entering into a contract; (3) to provide that a document would be legible by all; (4) to provide that a document would remain unaltered over time and provide a permanent record of a transaction; (5) to allow for the reproduction of a document so that each party would hold a copy of the same data; (6) to allow for the authentication of data by means of a signature; (7) to provide that a document would be in a form acceptable to public authorities and courts; (8) to finalize the intent of the author of the "writing" and provide a record of that intent; (9) to allow for the easy storage of data in a tangible form; (10) to facilitate control and subsequent audit for accounting, tax or regulatory purposes; or (11) to bring legal rights and obligations into existence in those cases where a "writing" is required for validity purposes.

17. However, it would be inappropriate to adopt an overly comprehensive notion of the functions performed by a "writing". The requirement of written form is often combined with other concepts distinct from writing, such as signature and original. Thus, the requirement of a "writing" should be considered as the lowest layer in a hierarchy of form requirements, which provides distinct levels of reliability, traceability and integrity with respect to paper documents. The requirement that data be presented in written form (which can be described as a "threshold requirement") should thus not be confused with more stringent requirements such as "signed

writing", "signed original" or "authenticated legal act". For example, under certain national laws, a written document that is neither dated nor signed, and the author of which either is not identified in the written document or is identified by a mere letterhead, would still be regarded as a "writing" although it might be of little evidential weight in the absence of other evidence (e.g. testimony) regarding its authorship. Also, the concept of writing does not necessarily denote inalterability since a "writing" in pencil might still be considered a "writing" under certain existing legal definitions. In general, notions such as "evidence" and "intent of the parties to bind themselves" are to be tied to the more general issues of reliability and authentication of the data and should not be included in the definition of a "writing".

18. The purpose of article 9, paragraph 2, is not to establish a requirement that, in all instances, electronic communications should fulfil all conceivable functions of a writing. Rather than focusing upon specific functions that a "writing" may fulfil in a particular context, article 9 focuses on the basic notion of the information being reproduced and read. That notion is expressed in article 9 in terms that were found to provide an objective criterion, namely that the information in an electronic communication must be accessible so as to be usable for subsequent reference. The use of the word "accessible" is meant to imply that information in the form of computer data should be readable and interpretable, and that the software that might be necessary to render such information readable should be retained. The word "usable" is intended to cover both human use and computer processing. The notion of "subsequent reference" was preferred to notions such as "durability" or "non-alterability", which would have established too harsh standards, and to notions such as "readability" or "intelligibility", which might constitute too subjective criteria.

6. Signature requirements

19. The increased use of electronic authentication techniques as substitutes for handwritten signatures and other traditional authentication procedures has created a need for a specific legal framework to reduce uncertainty as to the legal effect that may result from the use of such modern techniques, to which the Convention generally refers with the expression "electronic signature". The risk that diverging legislative approaches be taken in various countries with respect to electronic signatures calls for uniform legislative provisions to establish the basic rules of what is inherently an international phenomenon, where legal harmony as well as technical interoperability are desirable objectives.

Notion and types of electronic signatures

20. In an electronic environment, the original of a message is indistinguishable from a copy, bears no handwritten signature, and is not on paper. The potential for fraud is considerable, due to the ease of intercepting and altering information in electronic form without detection, and the speed of processing multiple transactions. The purpose of various techniques currently available on the market or still under development is to offer the technical means by which some or all of the functions identified as characteristic of handwritten signatures can be performed in an electronic environment. Such techniques may be referred to broadly as "electronic signatures".

21. In considering uniform rules on electronic signatures, UNCITRAL has examined various electronic signature techniques currently being used or still under development. The common purpose of those techniques is to provide functional equivalents to (a) handwritten signatures; and (b) other kinds of authentication mechanisms used in a paper-based environment (e.g. seals or stamps). The same techniques may perform additional functions in the sphere of electronic commerce, which are derived from the functions of a signature but correspond to no strict equivalent in a paper-based environment.

22. Electronic signatures may take the form of "digital signatures" based on public-key cryptography, and often generated within a "public-key-infrastructure" where the functions of creating and verifying the digital signature are supported by certificates issued by a trusted third party.[1] However, there are various other devices, also covered in the broad notion of "electronic signature", which may currently be used, or considered for future use, with a view to fulfilling one or more of the abovementioned functions of handwritten signatures. For example, certain techniques would rely on authentication through a biometric device based on handwritten signatures. In such a device, the signatory would sign manually, using a special pen, either on a computer screen or on a digital pad. The handwritten signature would then be analyzed by the computer and stored as a set of numerical values, which could be appended to a data message and displayed by the relying party for authentication purposes. Such an authentication system would presuppose that samples of the handwritten signature have been previously analysed and stored by the biometric device. Other techniques would involve the use of personal identification numbers (PINs), digitized versions of handwritten signatures, and other methods, such as clicking an "OK-box".

Technological neutrality

23. Article 9, paragraph 3, is based on the recognition of the functions of a signature in a paper-based environment. In the preparation of the Convention, the following functions of a signature were considered: to identify a person; to provide certainty as to the personal involvement of that person in the act of signing; and to associate that person with the content of a document. It was noted that, in addition, a signature could perform a variety of functions, depending on the nature of the document that is signed. For example, a signature might attest to the intent of a party to be bound by the content of a signed contract, to endorse authorship of a text, to associate itself with the content of a document written by someone else or to show when and at what time a person had been at a given place.

[1] For a detailed description of digital signatures and their applications, see *Guide to Enactment of the UNCITRAL Model Law on Electronic Signatures*, paras. 31-62 (United Nations Sales No. E.02.V.8).

24. Alongside the traditional handwritten signature, there are several procedures (e.g. stamping, perforation), sometimes also referred to as "signatures", that provide varying levels of certainty. For example, some countries generally require that contracts for the sale of goods above a certain amount should be "signed" in order to be enforceable. However, the concept of signature adopted in that context is such that a stamp, perforation or even a typewritten signature or a printed letterhead might be regarded as sufficient to fulfil the signature requirement. At the other end of the spectrum, there are requirements that combine the traditional handwritten signature with additional security procedures such as the confirmation of the signature by witnesses.

25. In theory, it may seem desirable to develop functional equivalents for the various types and levels of signature requirements in existence, so that users would know exactly the degree of legal recognition that could be expected from the use of the various means of authentication. However, any attempt to develop rules on standards and procedures to be used as substitutes for specific instances of "signatures" might create the risk of tying the legal framework provided by the Convention to a given state of technical development.

26. Therefore, the Convention does not attempt to identify specific technological equivalents to particular functions of hand-written signatures. Instead, it establishes the general conditions under which electronic communications would be regarded as authenticated with sufficient credibility and would be enforceable in the face of signature requirements. Focusing on the two basic functions of a signature, subparagraph 3 (a) establishes the principle that, in an electronic environment, the basic legal functions of a signature are performed by way of a method that identifies the originator of an electronic communication, namely to identify the author of a document, and indicates the originator's intention in respect of the information contained in the electronic communication.

27. Given the pace of technological innovation, the Convention provides criteria for the legal recognition of electronic signatures irrespective of the technology used (e.g. digital signatures relying on asymmetric cryptography; biometric devices (enabling the identification of individuals by their physical characteristics, whether by hand or face geometry, fingerprint reading, voice recognition or retina scan, etc.); symmetric cryptography, the use of PINs; the use of "tokens" as a way of authenticating electronic communications through a smart card or other device held by the signatory; digitized versions of handwritten signatures; signature dynamics; and other methods, such as clicking an "OK-box").

Extent of legal recognition

28. The provisions of article 9, paragraph 3, are only intended to remove obstacles to the use of electronic signatures, and do not affect other requirements for the validity of the electronic communication to which the electronic signature relates. Under the Convention, the mere signing of an electronic communication by means of a functional equivalent of a handwritten signature is not intended, in and of itself, to confer legal validity on the electronic communication. Whether an electronic communication that fulfils the requirement of a signature has legal validity is to be settled under the law applicable outside the Convention.

29. For the purposes of paragraph 3, it is irrelevant whether the parties are linked by prior agreement setting forth procedures for electronic communication (such as a trading partner agreement) or whether they had no prior contractual relationship regarding the use of electronic commerce. The Convention is thus intended to provide useful guidance both in a context where national laws would leave the question of authentication of electronic communications entirely to the discretion of the parties and in a context where requirements for signature, which are usually set by mandatory provisions of national law, should not be made subject to alteration by agreement of the parties.

30. The place of origin of an electronic signature, in and of itself, should in no way be a factor determining whether and to what extent foreign certificates or electronic signatures should be recognized as capable of being legally effective in a Contracting State. Determination of whether, or the extent to which, an electronic signature is capable of being legally effective should not depend on the place where the electronic signature was created or where the infrastructure (legal or otherwise) that supports the electronic signature is located, but on its technical reliability.

Basic conditions for functional equivalence

31. According to subparagraph 3 (a), an electronic signature must be capable of identifying the signatory and indicating the signatory's intention in respect of the information contained in the electronic communication.

32. The formulation of subparagraph 3 (b) differs slightly from the wording of article 7, paragraph 1, of the UNCITRAL Model Law on Electronic Commerce, where reference is made to an indication of the signatory's "approval" of the information contained in the electronic communication. It was noted that there might be instances where the law requires a signature, but that signature does not have the function of indicating the signing party's approval of the information contained in the electronic communication. For example, many countries have requirements of law for notarization of a document by a notary or attestation by a commissioner for oath. In such cases, the signature of the notary or commissioner merely identifies the notary or commissioner, and associates the notary or commissioner with the contents of the document, but does not indicate the approval by the notary or commissioner of the information contained in the document. Similarly, some laws require the execution of a document to be witnessed by witnesses, who may be required to append their signatures to that document. The signatures of the witnesses merely identify them and associate them with the contents of the document witnessed, but do not indicate their approval of the information contained in the document (A/60/17, para. 61). The current formulation of subparagraph 3 (a) was agreed upon to make it abundantly clear that the notion of "signature" in the Convention does not necessarily and in all cases imply a party's approval of the entire content of the communication to which the signature is attached (A/60/17, paras. 63-64).

Reliability of signature method

33. Subparagraph 3 (b) establishes a flexible approach to the level of security to be achieved by the method of identification used under subparagraph 3 (a). The method used under subparagraph 3 (a) should be as reliable as is appropriate for the purpose for which the electronic communication is generated or communicated, in

the light of all the circumstances, including any agreement between the originator and the addressee.

34. Legal, technical and commercial factors that may be taken into account in determining whether the method used under subparagraph 3 (a) is appropriate, include the following: (1) the sophistication of the equipment used by each of the parties; (2) the nature of their trade activity; (3) the frequency at which commercial transactions take place between the parties; (4) the kind and size of the transaction; (5) the function of signature requirements in a given statutory and regulatory environment; (6) the capability of communication systems; (7) compliance with authentication procedures set forth by intermediaries; (8) the range of authentication procedures made available by any intermediary; (9) compliance with trade customs and practice; (10) the existence of insurance coverage mechanisms against unauthorized communications; (11) the importance and the value of the information contained in the electronic communication; (12) the availability of alternative methods of identification and the cost of implementation; (13) the degree of acceptance or non-acceptance of the method of identification in the relevant industry or field both at the time the method was agreed upon and the time when the electronic communication was communicated; and (14) any other relevant factor.

35. Subparagraph 3 (b)(i) establishes a "reliability test" with a view to ensuring the correct interpretation of the principle of functional equivalence in respect of electronic signatures. The "reliability test", which appears also in article 7, subparagraph 1 (b), of the UNCITRAL Model Law on Electronic Commerce, reminds courts of the need to take into account factors other than technology, such as the purpose for which the electronic communication was generated or communicated, or a relevant agreement of the parties, in ascertaining whether the electronic signature used was sufficient to identify the signatory. Without subparagraph 3 (b), the courts in some States might be inclined to consider, for instance, that only signature methods that employed high-level security devices are adequate to identify a party, despite an agreement of the parties to use simpler signature methods (A/60/17, paras. 66).

36. However, UNCITRAL considered that the Convention should not allow a party to invoke the "reliability test" to repudiate its signature in cases where the actual identity of the party and its actual intention could be proved (A/60/17, para. 67). The requirement that an electronic signature needs to be "as reliable as appropriate" should not lead a court or trier of fact to invalidate the entire contract on the ground that the electronic signature was not appropriately reliable if there is no dispute about the identity of the person signing or the fact of signing, that is no question as to authenticity of the electronic signature. Such result would be particularly unfortunate, as it would allow a party to a transaction in which a signature was required to try to escape its obligations by denying that its signature (or the other party's signature) was valid—not on the ground that the purported signer did not sign, or that the document it signed had been altered, but only on the ground that the method of signature employed was not "as reliable as appropriate" in the circumstances. In order to avoid these situations, subparagraph 3 (b)(ii) validates a signature method—regardless of its reliability in principle—whenever the method used is proven in fact to have identified the signatory and indicated the signatory's intention in respect of the information contained in the electronic communication (A/60/17, paras. 65-67).

37. The notion of "agreement" in subparagraph 3 (b) is to be interpreted as covering not only bilateral or multilateral agreements concluded between parties directly exchanging electronic communications (e.g. "trading partners agreements", "communication agreements" or " interchange agreements") but also agreements involving intermediaries such as networks (e.g. "third-party service agreements"). Agreements concluded between users of electronic commerce and networks may incorporate "system rules", i.e. administrative and technical rules and procedures to be applied when communicating electronic communications.

7. Electronic originals

38. If "original" were defined as a medium on which information was fixed for the first time, it would be impossible to speak of "original" electronic communications, since the addressee of an electronic communication would always receive a copy thereof. However, paragraphs 4 and 5 should be put in a different context. The notion of "original" in paragraph 4 is useful since in practice many disputes relate to the question of originality of documents, and in electronic commerce the requirement for presentation of originals constitutes one of the main obstacles that the Convention attempts to remove. Although in some jurisdictions the concepts of "writing", "original" and "signature" may overlap, the Convention approaches them as three separate and distinct concepts.

39. Paragraphs 4 and 5 are also useful in clarifying the notions of "writing" and "original", in particular in view of their importance for purposes of evidence. Examples of documents that might require an "original" are trade documents such as weight certificates, agricultural certificates, quality or quantity certificates, inspection reports, insurance certificates, etc. While such documents are not negotiable or used to transfer rights or title, it is essential that they be transmitted unchanged, that is in their "original" form, so that other parties in international commerce may have confidence in their contents. In a paper-based environment, these types of document are usually only accepted if they are "original" to lessen the chance that they be altered, which would be difficult to detect in copies. Various technical means are available to certify the contents of an electronic communication to confirm its "originality". Without this functional equivalent of originality, the sale of goods using electronic commerce would be hampered since the issuers of such documents would be required to retransmit their electronic communication each and every time the goods are sold, or the parties would be forced to use paper documents to supplement the electronic commerce transaction.

40. Paragraphs 4 and 5 should be regarded as stating the minimum acceptable form requirement to be met by an electronic communication for it to be regarded as the functional equivalent of an original. These provisions should be regarded as mandatory, to the same extent that existing provisions regarding the use of paper-based original documents would be regarded as mandatory. The indication that the form requirements stated in paragraphs 4 and 5 are to be regarded as the "minimum acceptable" should not, however, be construed as inviting States to establish requirements stricter than those contained in the Convention by way of declarations made under article 19, paragraph 2.

41. Paragraphs 4 and 5 emphasize the importance of the integrity of the information for its originality and sets out criteria to be taken into account when assessing integrity by reference to systematic recording of the information,

assurance that the information was recorded without lacunae and protection of the data against alteration. It links the concept of originality to a method of authentication and puts the focus on the method of authentication to be followed in order to meet the requirement. It is based on the following elements: a simple criterion as to "integrity" of the data; a description of the elements to be taken into account in assessing the integrity; and an element of flexibility in the form of a reference to the surrounding circumstances. As regards the words "the time when it was first generated in its final form" in subparagraph 5 (a), it should be noted that the provision is intended to encompass the situation where information was first composed as a paper document and subsequently transferred on to a computer. In such a situation, subparagraph 5 (a) is to be interpreted as requiring assurances that the information has remained complete and unaltered from the time when it was composed as a paper document onwards, and not only as from the time when it was translated into electronic form. However, where several drafts were created and stored before the final message was composed, subparagraph 5 (a) should not be misinterpreted as requiring assurance as to the integrity of the drafts.

42. Paragraph 5 sets forth the criteria for assessing integrity, taking care to except necessary additions to the first (or "original") electronic communication such as endorsements, certifications, notarizations, etc. from other alterations. As long as the contents of an electronic communication remain complete and unaltered, necessary additions to that electronic communication would not affect its "originality". Thus when an electronic certificate is added to the end of an "original" electronic communication to attest to the "originality" of that electronic communication, or when data is automatically added by computer systems at the start and the finish of an electronic communication in order to transmit it, such additions would be considered as if they were a supplemental piece of paper with an "original" piece of paper, or the envelope and stamp used to send that "original" piece of paper.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 54-76
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 123-139
WG.IV, 43rd session (New York, 15-19 March 2004)	
WG.IV, 42nd session (Vienna, 17-21 November 2003)	A/CN.9/546, paras. 46-58
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 112-121

Article 10. Time and place of dispatch and receipt of electronic communications

1. The time of dispatch of an electronic communication is the time when it leaves an information system under the control of the originator or of the party who sent it on behalf of the originator or, if the electronic communication has not left an information system under the control of the originator or of the party who sent it on behalf of the originator, the time when the electronic communication is received.

2. The time of receipt of an electronic communication is the time when it becomes capable of being retrieved by the addressee at an electronic address designated by the addressee. The time of receipt of an electronic communication at another electronic address of the addressee is the time when it becomes capable of being retrieved by the addressee at that address and the addressee becomes aware that the electronic communication has been sent to that address. An electronic communication is presumed to be capable of being retrieved by the addressee when it reaches the addressee's electronic address.

3. An electronic communication is deemed to be dispatched at the place where the originator has its place of business and is deemed to be received at the place where the addressee has its place of business, as determined in accordance with article 6.

4. Paragraph 2 of this article applies notwithstanding that the place where the information system supporting an electronic address is located may be different from the place where the electronic communication is deemed to be received under paragraph 3 of this article.

1. Purpose of the article

43. When the parties deal through more traditional means, the effectiveness of the communications they exchange depends on various factors, including the time of their receipt or dispatch, as appropriate. Although some legal systems have general rules on the effectiveness of communications in a contractual context, in many legal systems general rules are derived from the specific rules that govern the effectiveness of offer and acceptance for purposes of contract formation. The essential question before UNCITRAL was how to formulate rules on time of receipt and dispatch of electronic communications that adequately transpose to the context of the Convention the existing rules for other means of communication.

44. Domestic rules on contract formation often distinguish between "instantaneous" and "non-instantaneous" communications of offer and acceptance or between communications exchanged between parties present at the same place at the same time (*inter praesentes*) or communications exchanged at a distance (*inter absentes*). Typically, unless the parties engage in "instantaneous" communication or are negotiating face-to-face, a contract will be formed when an "offer" to conclude the contract has been expressly or tacitly "accepted" by the party or parties to whom it was addressed.

45. Leaving aside the possibility of contract formation through performance or other actions implying acceptance, which usually involves a finding of facts, the controlling factor for contract formation where the communications are not "instantaneous" is the time when an acceptance of an offer becomes effective. There are currently four main theories for determining when an acceptance becomes effective under general contract law, although they are rarely applied in pure form or for all situations.

46. Pursuant to the "declaration" theory, a contract is formed when the offeree produces some external manifestation of its intent to accept the offer, even though this may not yet be known to the offeror. According to the "mailbox rule", which is traditionally applied in most common law jurisdictions, but also in some countries belonging to the civil law tradition, acceptance of an offer is effective upon dispatch by the offeree (for example, by placing a letter in a mailbox). In turn, under the "reception" theory, which has been adopted in several civil law jurisdictions, the acceptance becomes effective when it reaches the offeror. Lastly, the "information" theory requires knowledge of the acceptance for a contract to be formed. Of all these theories, the "mailbox rule" and the reception theory are the most commonly applied for business transactions

47. In preparing article 10, UNCITRAL recognized that contracts other than sales contracts governed by the rules on contract formation in the United Nations Sales Convention are in most cases not subject to a uniform international regime. Different legal systems use various criteria to establish when a contract is formed and UNCITRAL took the view that it should not attempt to provide a rule on the time of contract formation that might be at variance with the rules on contract formation of the law applicable to any given contract (A/CN.9/528, para. 103; see also A/CN.9/546, paras. 119-121). Instead, the Convention offers guidance that allow for the application, in the context of electronic contracting, of the concepts traditionally used in international conventions and domestic law, such as "dispatch" and "receipt" of communications. To the extent that those traditional concepts are essential for the application of rules on contract formation under domestic and uniform law, UNCITRAL considered that it was very important to provide functionally equivalent concepts for an electronic environment (A/CN.9/528, para. 137)

48. However, article 10, paragraph 2, does not address the efficacy of the electronic communication that is sent or received. Whether a communication is unintelligible or unusable by a recipient is therefore a separate issue from whether that communication was sent or received. The effectiveness of an illegible communication, or whether it binds any party, are questions left to other law.

2. "Dispatch" of electronic communications

49. Paragraph 1 follows in principle the rule set out in article 15 of the UNCITRAL Model Law on Electronic Commerce, although it provides that the time of dispatch is when the electronic communication leaves an information system under the control of the originator rather than the time when the electronic communication enters an information system outside the control of the originator (A/60/17, para. 78). The definition of "dispatch" as the time when an electronic communication left an information system under the control of the originator—as distinct from the time when it entered another information system—was chosen so as to more closely mirror the notion of "dispatch" in a non-electronic environment (A/CN.9/571, para. 142), which is understood in most legal systems as the time when a communication leaves the originator's sphere of control. In practice, the result should be the same as under article 15, paragraph 1, of the UNCITRAL Model Law on Electronic Commerce, since the most easily accessible evidence to prove that a communication has left an information system under the control of the originator is the indication, in the relevant transmission protocol, of the time when

the communication was delivered to the destination information system or to intermediary transmission systems.

50. Article 10 also covers situations where an electronic communication has not left an information system under the control of the originator. This hypothesis, which is not covered in article 12 of the UNCITRAL Model Law on Electronic Commerce, may happen, for example, when the parties exchange communications through the same information system or network, so that the electronic communication never really enters a system under the control of another party. In such cases, dispatch and receipt of the electronic communication coincide.

3. "Receipt" of electronic communications

51. The time of receipt of an electronic communication is the time when it becomes capable of being retrieved by the addressee at an electronic address designated by the addressee. This is presumed to occur when the electronic communication reaches the addressee's electronic address. Paragraph 2 of article 10 is based on a similar rule in article 15, paragraph 2, of the UNCITRAL Model Law on Electronic Commerce, although with a different wording.

"Capable of being retrieved"

52. Paragraph 2 is conceived as a set of presumptions, rather than a firm rule on receipt of electronic communications. Paragraph 2 aims at achieving an equitable allocation of the risk of loss of electronic communications. It takes into account the need to offer the originator an objective default rule to establish whether a message can be seen as having being received or not. At the same time, however, paragraph 2 recognizes that concerns over security of information and communications in the business world had led to the increased use of security measures such as filters or firewalls which might prevent electronic communications from reaching their addressees. Using a notion common to many legal systems, and reflected in domestic enactments of the UNCITRAL Model Law on Electronic Commerce, this paragraph requires that an electronic communication be capable of being retrieved, in order to be deemed to have been received by the addressee. This requirement is not contained in the Model Law, which focuses on timing and defers to national law on whether electronic communications need to meet other requirements (such as "processability") in order to be deemed to have been received.[2]

53. The legal effect of retrieval falls outside the scope of the Convention, and is left for the applicable law. Like article 24 of the United Nations Sales Convention, paragraph 2 is not concerned with national public holidays and customary working hours, elements that would have led to problems and to legal uncertainty in an instrument that applied to international transactions (A/CN.9/571, para. 159).

54. By the same token, the Convention does not intend to overrule provisions of domestic law under which receipt of an electronic communication may occur at the time when the communication enters the sphere of the addressee, irrespective of whether the communication is intelligible or usable by the addressee. Nor is the

[2] See, on this particular point, a comparative study conducted by the Secretariat in A/CN.9/WG.IV/WP.104/Add2, paras. 10-31, available at http://www.uncitral.org/english/workinggroups/wg_ec/wp-104-add2-e.pdf.

Convention intended to run counter to trade usages, under which certain encoded messages are deemed to be received even before they are usable by, or intelligible for, the addressee. It was felt that the Convention should not create a more stringent requirement than currently exists in a paper-based environment, where a message can be considered to be received even if it is not intelligible for the addressee or not intended to be intelligible to the addressee (e.g. where encrypted data is transmitted to a depository for the sole purpose of retention in the context of intellectual property rights protection).

55. Despite the different wording used, the effect of the rules on receipt of electronic communications in the Convention is consistent with article 15 of the UNCITRAL Model Law on Electronic Commerce. As is the case under article 15 of the Model Law, the Convention retains the objective test of entry of a communication in an information system to determine when an electronic communication is presumed to be "capable of being retrieved" and therefore "received". The requirement that an electronic communication should be capable of being retrieved, which is presumed to occur when the communication reaches the addressee's electronic address, should not be seen as adding an extraneous subjective element to the rule contained in article 15 of the Model Law. In fact "entry" in an information system is understood under article 15 of the Model Law as the time when an electronic communication "becomes available for processing within that information system",[3] which is arguably also the time when the communication becomes "capable of being retrieved" by the addressee.

56. Whether or not an electronic communication is indeed "capable of being retrieved" is a factual matter outside the Convention. UNCITRAL took note of the increasing use of security filters (such as "spam" filters) and other technologies restricting the receipt of unwanted or potentially harmful communications (such as communications suspected of containing computer viruses). The presumption that an electronic communication becomes capable of being retrieved by the addressee when it reaches the addressee's electronic address may be rebutted by evidence showing that the addressee had in fact no means of retrieving the communication (A/60/17, para. 80; see also A/CN.9/571, paras. 149 and 160).

"Electronic address"

57. Similar to a number of domestic laws, the Convention uses the term "electronic address", instead of "information system", which was the expression used in the Model Law. In practice, the new terminology, which appears in other international instruments such as the Uniform Customs and Practices for Documentary Credits ("UCP 500")—Supplement for Electronic Presentation ("eUCP"),[4] should not lead to any substantive difference. Indeed, the term "electronic address" may, depending on the technology used, refer to a communications network, and in other instances could include an electronic mailbox, a telecopy device or another specific "portion or location in an information system that a person uses for receiving electronic messages" (A/CN.9/571, para. 157).

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[3] See *Guide to Enactment of the UNCITRAL Model Law on Electronic Commerce* (United Nations publication, Sales No. E.99.V.4), para. 103.

[4] See James E. Byrne and Dan Taylor, *ICC Guide to the eUCP*, ICC, Paris, 2002, p. 54.

58. The notion of "electronic address", like the notion of "information system", should not be confused with information service providers or telecommunications carriers that might offer intermediary services or technical support infrastructure for the exchange of electronic communications (A/CN.9/528, para. 149).

"Designated" and "non-designated" electronic addresses

59. The Convention retains the distinction made in article 15 of the Model Law between delivery of messages to specifically designated electronic addresses and delivery of messages to an address not specifically designated. In the first case, the rule of receipt is essentially the same as under article 15, paragraph (2)(a)(i), of the Model Law, that is, a message is received when it reaches the addressee's electronic address (or "enters" the addressee's "information system" in the terminology of the Model Law). The Convention does not contain specific provisions as to how the designation of an information system should be made, or whether the addressee could make a change after such a designation.

60. In distinguishing between designated and non-designated electronic addresses, paragraph 2 aims at establishing a fair allocation of risks and responsibilities between originator and addressee. In normal business dealings, parties who own more than one electronic address could be expected to take the care of designating a particular one for the receipt of messages of a certain nature, and to refrain from disseminating, electronic addresses they rarely used for business purposes. By the same token, however, parties should be expected not to address electronic communications containing information of a particular business nature (e.g. acceptance of a contract offer) to an electronic address they knew or ought to have known would not be used to process communications of such a nature (e.g. an e-mail address used to handle consumer complaints). It would not be reasonable to expect that the addressee, in particular large business entities, should pay the same level of attention to all the electronic addresses it owned (A/CN.9/528, para. 145).

61. One noticeable difference between the Convention and the UNCITRAL Model Law on Electronic Commerce, however, concerns the rules for receipt of electronic communications sent to a non-designated address. The Model Law distinguishes between communications sent to an information system other than the designated one and communications sent to any information system of the addressee in the absence of any particular designation. In the first case, the Model Law does not regard the message as being received until the addressee actually retrieves it. The rationale behind this rule is that if the originator chose to ignore the addressee's instructions and sent the electronic communication to an information system other than the designated system, it would not be reasonable to consider the communication as having been delivered to the addressee until the addressee has actually retrieved it. In the second situation, however, the underlying assumption of the Model Law was that for the addressee it was irrelevant to which information system the electronic communication would be sent, in which case it would be reasonable to presume that it would accept electronic communications through any of its information systems.

62. In this particular situation, the Convention follows the approach taken in a number of domestic enactments of the Model Law and treats both situations in the same manner. Thus for all cases where the message is not delivered to a designated electronic address, receipt under the Convention only occurs when (a) the electronic

communication becomes capable of being retrieved by the addressee (by reaching an electronic address of the addressee) and (b) the addressee actually becomes aware that the communication was sent to that particular address.

63. In cases where the addressee has designated an electronic address, but the communication was sent elsewhere, the rule in the Convention is not different in result from article 15, paragraph (2)(a)(ii), of the Model Law, which itself requires, in those cases, that the addressee retrieves the message (which in most cases would be the immediate evidence that the addressee became aware that the electronic communication has been sent to that address).

64. The only substantive difference between the Convention and the Model Law, therefore, concerns the receipt of communications in the absence of any designation. In this particular case, UNCITRAL agreed that practical developments since the adoption of the Model Law justified a departure from the original rule. It also considered, for instance, that many persons have more than one electronic address and could not be reasonably expected to anticipate receiving legally binding communications at all addresses they maintain (A/60/17, para. 82).

Awareness of delivery

65. The addressee's awareness that the electronic communication has been sent to a particular non-designated address is a factual manner that could be proven by objective evidence, such as a record of notice given otherwise to the addressee, or a transmission protocol or other automatic delivery message stating that the electronic communication had been retrieved or displayed at the addressee's computer.

4. Place of dispatch and receipt

66. The purpose of paragraphs 3 and 4 is to deal with the place of receipt of electronic communications. The principal reason for including these rules is to address a characteristic of electronic commerce that may not be treated adequately under existing law, namely, that very often the information system of the addressee where the electronic communication is received, or from which the electronic communication is retrieved, is located in a jurisdiction other than that in which the addressee itself is located. Thus, the rationale behind the provision is to ensure that the location of an information system is not the determinant element, and that there is some reasonable connection between the addressee and what is deemed to be the place of receipt, and that that place can be readily ascertained by the originator.

67. Paragraph 3 contains a firm rule and not merely a presumption. Consistent with its objective of avoiding a duality of regimes for online and offline transactions and, taking the United Nations Sales Convention as a precedent, where the focus was on the actual place of business of the party, the phrase "deemed to be" has been chosen deliberately to avoid attaching legal significance to the use of a server in a particular jurisdiction that differed from the jurisdiction where the place of business was located simply because that was the place where an electronic communication had reached the information system where the addressee's electronic address was located (A/60/17, para. 83).

68. The effect of paragraph 3 therefore is to introduce a distinction between the deemed place of receipt and the place actually reached by an electronic communication at the time of its receipt under paragraph 2. This distinction is not to

be interpreted as apportioning risks between the originator and the addressee in case of damage or loss of an electronic communication between the time of its receipt under paragraph 2 and the time when it reached its place of receipt under paragraph 3. Paragraph 3 establishes a rule on location to be used where another body of law (e.g. on formation of contracts or conflict of laws) requires determination of the place of receipt of an electronic communication.

References to preparatory work:

UNCITRAL, 38th session (Vienna, 4-15 July 2005)	A/60/17, paras. 77-84
WG.IV, 44th session (Vienna, 11-22 October 2004)	A/CN.9/571, paras. 140-166
WG.IV, 42nd session (Vienna, 17-21 November 2003)	A/CN.9/546, paras. 59-86
WG.IV, 41st session (New York, 5-9 May 2003)	A/CN.9/528, paras. 132-151
WG.IV, 39th session (New York, 11-15 March 2002)	A/CN.9/509, paras. 93-98